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PARTS 1 & 2

VARIANCE AND CONFIDENCE INTERVAL ESTIMATION

By M. N. MURTHY

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SUMMARY. In this paper some results of the investigations on the efficiencies of the different methods of estimation of variance of the estimate and of setting up of confidence intervals for the population parameter in large-scale sample surveys are given. The efficiencies of setting up confidence intervals based on different methods of estimating the variance of the estimate have been studied with respect to a number of criteria such as the expected value and the distribution of the length of the confidence interval. It is shown that the efficiency of the confidence interval based on the sub-sample estimates approaches that of the confidence interval obtained by conventional methods more rapidly for initial increases in the number of sub-samples than for further increases. The results have been shown to be valid in case of stratified sampling with a few sub-samples in each stratum.

1. INTRODUCTION

1.1. Some of the results of the investigations on (i) methods of estimation of variance of the estimate in large-scale sample surveys and (ii) methods of setting up confidence interval for the population parameter will be given in this paper. As there is an abundance of literature on these two topics, it may not be out of place here to give a brief review of the work that has already been done. This review is by no means exhaustive.

1.2. Here the aim is to study the efficiencies of methods of estimation of variance and of setting up confidence intervals which are operationally convenient. Invariably, such methods are less efficient than the conventional methods involving much calculation at the stage of analysis. Sometimes it may be possible to strike a balance between the efficiency aimed at and the labour involved.

2. METHODS OF ESTIMATION OF VARIANCE

2.1. In the case of simple random sampling from a normal population, the variance of the estimate of μ , the mean in the population, involves the parameter σ , the population standard deviation. Let a simple random sample of size N be drawn from a normal population with mean μ and standard deviation σ . Let the observations be $X_1, X_2, \dots, X_N$. The minimum variance estimate among the class of

unbiased estimates of μ is $\bar{X}$, the sample mean and its standard error is $\sigma/\sqrt{N}$. A list of estimates of σ available in statistical literature is given below.

$$s_1 = \sqrt{\frac{N}{\sum_{i=1}^N (X_i - \bar{X})^2}} \quad \dots \quad (1)$$

$$s_2 = \frac{1}{c_2} \sqrt{\frac{m}{\sum_{i=1}^m (x_i - \bar{x})^2}} \quad \dots \quad (2)$$

$$s_3 = \frac{1}{c_2} \sqrt{\frac{n}{\sum_{i=1}^m (\bar{x}_i - \bar{X})^2}} \quad \dots \quad (3)$$

$$s_4 = \frac{\bar{w}}{d_2} \quad \dots \quad (4)$$

$$s_5 = \frac{\lambda_2 - \lambda_1}{u_2 - u_1} \quad \dots \quad (5)$$

where $\bar{x}$ is the mean of a sub-sample of size m , $\bar{x}_i$ is the mean of the i -th random group with n observations such that $nm=N$, ($i = 1, 2, \dots, m$); $\bar{w}$ is the mean of the ranges in sub-group of n elements in each; λ_1 and λ_2 are two numbers to be properly chosen; u_1 and u_2 are given by

$$p = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{u_1} e^{-x^2/2} dx \text{ and } p+q = \frac{1}{\sqrt{2\pi}} \int_{u_2}^{\infty} e^{-x^2/2} dx$$

where p and q are proportions of the observations less than λ_1 and between λ_1 and λ_2 respectively;

$$c_2 = \sqrt{\frac{2}{m} \frac{\Gamma(\frac{m}{2})}{\Gamma(\frac{m-1}{2})}}$$

and

$$d_2 = \int_{-\infty}^{\infty} \{1 - \alpha_1^n - (1 - \alpha_1)^n\} dx_1$$

where $\alpha_1 = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{x_1} e^{-x^2/2} dx$ and x_1 is the smallest observation in the sample. The values of c_2 and d_2 are tabulated for different values of m and n in the manual of the American Society for Testing Materials (1951).

2.2. Of these estimates, as is to be expected, s_1 is the most efficient and the most difficult to calculate. In sampling from normal populations, the estimates s_2 and s_3 have the same efficiency. Hansen, Hurwitz and Madow (1953) have compared the variances of the estimates of the type s_2^2 and s_3^2 namely $s_2'^2 = \frac{1}{m-1} \sum_{i=1}^m (x_i - \bar{x})^2$ and

VARIANCE AND CONFIDENCE INTERVAL ESTIMATION

$s'^2_3 = \frac{n}{m-1} \sum_{i=1}^m (\bar{x}_i - \bar{X})^2$ and observe that s'^2_2 is more or less precise than s'^2_3 according as β is less than or greater than 3 where $\beta = \frac{\mu_4}{\mu_2^2}$. The expressions for the variance of s'^2_2 and s'^2_3 are

$$V(s'^2_2) = \left(\beta - \frac{m-3}{m-1} \right) \frac{\mu_2^2}{m} \quad \dots \quad (6)$$

$$V(s'^2_3) = \left(\beta_n - \frac{m-3}{m-1} \right) \frac{\mu_2^2}{m} \quad \dots \quad (7)$$

where $\beta_n = \frac{\beta}{n} + 3 \frac{n-1}{n}$. Hence it follows that $V(s'^2_2) \gtrless V(s'^2_3)$ according as $\beta \gtrless 3$.

2.3. If the size of the sub-group is small (about 7 or 8 observations), then the loss of efficiency in using s_4 instead of s_1 as an estimate of σ is not large (Pearson and Maines, 1935). Pearson (1932) has tabulated the mean, standard deviation and percentage limits (0.5%, 1%, 5% and 10%) of range in samples from a normal population for sample sizes 2(1) 30(5) 100. Cadwell (1954) has given an asymptotic expression for the probability integral of range of samples from a symmetrical unimodal population and has studied its accuracy for the case of normal parent population and for sample sizes 20 to 100. Stevens (1948) suggested the estimate s_5 and tabulated the efficiency of this estimate as compared to that of s_1 in large samples for different values of $\frac{\lambda_1 - \mu}{\sigma}$ and $\frac{\lambda_2 - \mu}{\sigma}$, while sampling from a normal population with mean μ and standard deviation σ .

2.4. An empirical study was conducted to study the efficiency of s_5 as compared to that of s_1 for a sample of size 100 from a normal population. For this purpose the samples from a normal population with mean 0 and standard deviation 1 given by Mahalanobis and others (1934) have been used. There are 104 samples of size 100. For each of these the mean, standard deviation and frequency distribution have been given. The mean and variance of the sample standard deviations are 0.9887 and 0.0049 respectively. Taking λ_1 and λ_2 to be -0.5 and 0.5 , for each sample, s_5 was calculated. The mean and variance of s_5 turned out to be 1.0009 and 0.0193 respectively. Hence s_5 can be considered to be unbiased for this sample size and the efficiency of s_5 as compared to that of s_1 is 25% which agrees with the figure given by Stevens. The efficiency of s_5 can be increased by taking the values of λ_1 and λ_2 near about the mean μ on either side of it.

3. INTERPENETRATING SUB-SAMPLES

3.1. In a stratified sampling design where n independent and interpenetrating sub-samples are taken from each stratum, an estimate of the variance of the estimate can be obtained by using (i) the sub-sample estimates of total or (ii) the sub-sample estimates of strata totals. It may be of interest to get an expression for the loss of efficiency in using the former in preference to the latter.

3.2. Let there be k strata and n independent and interpenetrating sub-samples in each stratum. For the sake of simplicity let the sub-sample sizes within each stratum be the same. Suppose $\hat{y}_{ij}$ is an unbiased estimate of the j -th stratum total y_j from the i -th sub-sample ($i = 1, 2, \dots, n; j = 1, 2, \dots, k$). The two estimates of the variance of the estimate $\hat{y}$ of the total y are

$$(i) \quad \hat{V}_1(\hat{y}) = \frac{1}{n(n-1)} \sum_{i=1}^n (\hat{y}_{i\cdot} - \hat{y})^2 \quad \dots (8)$$

and

$$(ii) \quad \hat{V}_2(\hat{y}) = \frac{1}{n(n-1)} \sum_{j=1}^k \sum_{i=1}^n (\hat{y}_{ij} - \hat{y}_{\cdot j})^2 \quad \dots (9)$$

where

$$\hat{y}_{i\cdot} = \sum_{j=1}^k \hat{y}_{ij}, \quad \hat{y}_{\cdot j} = \frac{1}{n} \sum_{i=1}^n \hat{y}_{ij} \quad \text{and} \quad \hat{y} = \frac{1}{n} \sum_{i=1}^n \hat{y}_{i\cdot} \quad \dots (10)$$

3.3. It can be easily verified that the above two estimates of the variance are unbiased. The variances of the two estimates are given by

$$V\{\hat{V}_1(\hat{y})\} = \frac{1}{n^3(n-1)} \left[\sum_{j=1}^k \{(n-1)\mu_{4j} + (3-n)\mu_{2j}^2\} + 4n \sum_{j=1}^k \sum_{i>j} \mu_{2i} \mu_{2j} \right] \quad \dots (11)$$

and

$$V\{\hat{V}_2(\hat{y})\} = \frac{1}{n^3(n-1)} \left[\sum_{j=1}^k \{(n-1)\mu_{4j} + (3-n)\mu_{2j}^2\} \right] \quad \dots (12)$$

where μ_{2j} and μ_{4j} are the second and fourth moments of the estimate $\hat{y}_{ij}$. From the above expressions it follows that $V\{\hat{V}_1(\hat{y})\} > V\{\hat{V}_2(\hat{y})\}$. The loss of efficiency in using $\hat{V}_1(\hat{y})$ instead of $\hat{V}_2(\hat{y})$ as an estimate of $V(\hat{y})$ is given by

$$L = \frac{V\{\hat{V}_1(\hat{y})\} - V\{\hat{V}_2(\hat{y})\}}{V\{\hat{V}_2(\hat{y})\}} = \frac{n}{n-1} \cdot \frac{4 \sum_{j=1}^k \sum_{i>j} \mu_{2i} \mu_{2j}}{\sum_{j=1}^k \left(\beta_j - \frac{n-3}{n-1} \right) \mu_{2j}^2} \quad \dots (13)$$

where $\beta_j = \frac{\mu_{4j}}{\mu_{2j}^2}$. If the distribution of the estimates within each stratum can be assumed to be normal, then $\beta_j = 3$ for all j . Hence L becomes

$$L = \frac{2 \sum_{j=1}^k \sum_{i>j} \mu_{2i} \mu_{2j}}{\sum_{j=1}^k \mu_{2j}^2} = \frac{\mu_2^2}{\sum_{j=1}^k \mu_{2j}^2} - 1 \quad \dots (14)$$

where $\mu_2 = \sum_{j=1}^k \mu_{2j}$. If the coefficient of variation of the estimate in each of the strata can be assumed to be equal, then L is given by

$$L = \frac{2 \sum_{j=1}^k \sum_{i>j} y_i^2 y_j^2}{\sum_{j=1}^k y_j^4} \quad \dots (15)$$

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Instead, if it is assumed that the variance of the estimate in each stratum is the same, then L is equal to $k-1$. It may be noticed that the loss may be substantial if the number of strata is large.

4. CONFIDENCE INTERVAL ESTIMATION

4.1. If a sample of size N is drawn from a normal population with mean μ and standard deviation σ , then the confidence interval for μ is given by

$$P \left\{ \bar{X} - t_{\alpha} \frac{\sigma}{\sqrt{N}} < \mu < \bar{X} + t_{\alpha} \frac{\sigma}{\sqrt{N}} \right\} = 1 - \alpha \quad \dots (16)$$

where $1 - \alpha$ is the confidence coefficient and t_{α} is the $\alpha\%$ point of the distribution of $\frac{\bar{X} - \mu}{\sigma/\sqrt{N}}$. In practice one has to estimate σ from the sample itself by one of the procedures given in Section 2.

4.2. If s_1 is taken as an estimate of σ , then it is well known that the statistic

$$t = \frac{\bar{X} - \mu}{s_1} \sqrt{N-1} \quad \dots (17)$$

is distributed as Student's t with $N-1$ degrees of freedom. Of course, for large samples the above statistic is distributed normally with mean 0 and standard deviation 1. Similarly the statistics

$$t' = \lambda' \frac{(\bar{X} - \mu)}{s_2} \quad \text{and} \quad t'' = \lambda'' \frac{(\bar{X} - \mu)}{s_3} \quad \dots (18)$$

are also distributed as Student's t with $(n-1)$ degrees of freedom, where n is the number of groups or sub-sample size and λ' and λ'' are constants.

4.3. Daly (1946) has proved that $\bar{x}$ and w , the mean and range of sample of N independent observations on a normally distributed variate x are statistically independent. Lord (1947) has given the 5% and 1% points of the distribution of the statistic

$$u = \frac{(\bar{X} - \mu)}{\bar{w}} d_2 \sqrt{nm} \quad \dots (19)$$

where n is the sub-group size and m the number of sub-groups. Patnaik (1950) has obtained an approximation to the distribution of $\bar{w}$ and making use of this has derived the distribution of u . Jackson and Ross (1955) have transformed the tables of Lord so as to provide the percentage points of the distribution of the statistic

$$G_1 = \frac{(\bar{X} - \mu)}{\bar{w}} = \frac{u}{d_2 \sqrt{nm}} \quad \dots (20)$$

Noether (1955) has considered the statistics

$$G_1 = \frac{(\bar{X} - \mu)}{\bar{w}} \quad \text{and} \quad G_2 = \frac{|\bar{X}_1 - \bar{X}_2|}{\bar{w}^1},$$

where $\bar{w}^1$ is the mean of the ranges of all sub-groups of both the samples, and has given the percentage points for G_1 and G_2 so that confidence intervals for μ and $(\mu_1 - \mu_2)$ can be set up in the form

$$P\{\bar{X} - g_{1\alpha}\bar{w} < \mu < \bar{X} + g_{1\alpha}\bar{w}\} = 1 - \alpha \quad \dots (21)$$

and
$$P\{(\bar{X}_1 - \bar{X}_2) - g_{2\alpha}\bar{w}^1 < (\mu_1 - \mu_2) < (\bar{X}_1 - \bar{X}_2) + g_{2\alpha}\bar{w}^1\} = 1 - \alpha \quad \dots (22)$$

where $g_{1\alpha}$ and $g_{2\alpha}$ are the $\alpha\%$ points of the distributions of G_1 and G_2 . Further he has tabulated the values of a_N for different values of n the sub-group size and m the number of sub-group ($nm = N$) which when multiplied by the sum of the ranges in the sub-groups provides us an unbiased estimate of σ .

4.4. Let $x_1, x_2, \dots, x_n$ be independent observations on a variate x with some distribution function, arranged in the increasing order of magnitude. Thompson (1936) has shown that

$$P(X_k < M < X_{n-k+1}) = 1 - 2I_{0.5}(n-k+1, k) \quad \dots (23)$$

where M is the median in the population and $I_x(p, q)$ is the incomplete Beta function $\frac{1}{\beta(p, q)} \int_0^x y^{p-1} (1-y)^{q-1} dy$ which has been tabulated by Karl Pearson. If the distribution of x is symmetrical, then the above expression gives us the confidence region for the population mean. Nair (1940) has tabulated the values of k which give us confidence intervals with confidence coefficient greater than or equal to 0.95 and 0.99 for values of $n = 6(1) 81$.

4.5. In what follows the efficiencies of the confidence intervals based on s_1 and s_2 will be compared. For the sake of convenience let us redefine s_1^2 and s_2^2 as

$$s_1^2 = \frac{1}{N(N-1)} \sum_{i=1}^N (x_i - \bar{X})^2 \quad \dots (24)$$

and
$$s_2^2 = \frac{1}{N(n-1)} \sum_{i=1}^n (x_i - \bar{x})^2 \quad \dots (25)$$

where $x_1, x_2, \dots, x_N$ are the N observations drawn from a normal population with mean μ and standard deviation σ and n is the sub-sample size. It is clear that $N(N-1) \frac{s_1^2}{\sigma^2}$ and $N(N-1) \frac{s_2^2}{\sigma^2}$ are distributed as χ^2 with $N-1$ and $n-1$ degrees of freedom respectively. Hence it follows that the statistics

$$t_1 = \frac{(\bar{X} - \mu)}{s_1} \quad \text{and} \quad t_2 = \frac{(\bar{X} - \mu)}{s_2} \quad \dots (26)$$

VARIANCE AND CONFIDENCE INTERVAL ESTIMATION

are distributed as Student's t with $N-1$ and $n-1$ degrees of freedom respectively. If $t_{1\alpha}$ and $t_{2\alpha}$ are the $\alpha\%$ limits of the distribution of t_1 and t_2 , then the lengths of the confidence intervals by the two methods will be

$$L_1 = 2t_{1\alpha}s_1 \quad \text{and} \quad L_2 = 2t_{2\alpha}s_2.$$

4.6. A number of criteria can be suggested for comparing the efficiencies of L_1 and L_2 . L_1 and L_2 may be said to have approximately the same efficiency if $E(L_2)$ and $V(L_2)$ are nearly equal to $E(L_1)$ and $V(L_1)$ respectively. It is to be noted that $E(L_2)$ and $V(L_2)$ tend to $E(L_1)$ and $V(L_1)$ respectively as n tends to N . But the convergence after a certain stage becomes slow in the case of the expected value. The expected values are given by

$$E(L_1) = 2t_{1\alpha} \cdot \frac{\sigma}{\sqrt{N}} \quad \text{if } N \text{ is large } (>25) \quad \dots (27)$$

and
$$E(L_2) = 2t_{2\alpha} c_2^1 \frac{\sigma}{\sqrt{N}} \quad \text{where } c_2^1 = \sqrt{\frac{n}{n-1}} c_2. \quad \dots (28)$$

If N is fairly large (>100) then $t_{1\alpha} = 1.96$, for in that case t_1 is distributed normally with mean 0 and standard deviation unity. Table 1 gives the values of the ratio $E(L_2)/E(L_1)$ for different values of n , assuming N to be large.

TABLE 1. VALUES OF THE RATIO OF THE EXPECTED VALUE OF L_2 TO THAT OF L_1 FOR DIFFERENT VALUES OF n

n	2	3	4	5	6	7	8	9	10	15	20	25
$\frac{E(L_2)}{E(L_1)}$	5.172	1.946	1.496	1.331	1.248	1.198	1.164	1.141	1.123	1.075	1.054	1.042

4.7. The confidence interval L_1 and L_2 may be said to have approximately the same efficiency if L_2^* is nearly equal to L_1^* where L_1^* and L_2^* are given by

$$P\{L_1 \leq L_1^*\} = 0.95 \quad \dots (29)$$

$$P\{L_2 \leq L_2^*\} = 0.95. \quad \dots (30)$$

This criterion is defective in the sense that even if L_2^* is nearly equal to L_1^* at this level of confidence, this may not be true for some other level. A better approach is to compare the distribution functions of L_1 and L_2 for different values of n . Here also it may be observed that the convergence of the distribution function of L_2 to that of L_1 is likely to become very slow for values of n greater than a certain value. Table 2 gives the values of L_1^* and L_2^* for different values of N and n . Table 3 shows the distribution function of L_1 for $N = 100$ and that of L_2 for $n = 4, 5, 10, 20$ and 40 .

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TABLE 2. COMPARISON OF THE VALUES OF L_1^* AND L_2^* FOR DIFFERENT VALUES OF N AND n AT 95% CONFIDENCE LEVEL

N	L_1^*	values of L_2^*							
		$n = 2$	$n = 3$	$n = 4$	$n = 5$	$n = 6$	$n = 8$	$n = 10$	$n = 24$
96	0.223	2.559	0.750	0.514	*	0.380	0.332	*	0.261
120	0.198	2.273	0.680	0.469	0.380	0.349	0.306	0.283	0.234
200	0.150	1.761	*	0.363	0.302	*	0.237	0.219	0.181

TABLE 3. COMPARISON OF THE DISTRIBUTION FUNCTIONS OF L_1 AND L_2 FOR $N = 100$, $n = 4, 5, 10, 20$ AND 40

L	$P(L_1 < L)$	$P(L_2 < L)$				
		$n = 4$	$n = 5$	$n = 10$	$n = 20$	$n = 40$
0.22	0.0000	0.1294	0.1298	0.1053	0.0599	0.0200
0.24	0.0040	0.1644	0.1734	0.1701	0.1379	0.0832
0.26	0.1128	0.1998	0.2191	0.2541	0.2570	0.2304
0.28	0.5902	0.2352	0.2709	0.3541	0.4111	0.4551
0.30	0.9522	0.2760	0.3278	0.4591	0.5772	0.6930
0.32	0.9991	0.3218	0.3833	0.5621	0.7252	0.8655
0.34	1.0000	0.3663	0.4416	0.6641	0.8401	0.9547

4.8. As it is easier to compute s_2 than s_1 , the object should be to find sub-sample size required to give us L_2 which does not differ much from L_1 . In other words the sub-sample size should be so chosen that the variation of L_2 about L_1 is not much keeping an eye on the labour involved. L_2 may be said to be approximately as efficient as L_1 , if

$$P\left(\left|\frac{L_2}{L_1} - 1\right| < \delta\right) \dots (31)$$

is fairly large where δ is a small quantity. To find this probability we require the distribution of (L_2/L_1) , which can be deduced from a general theorem given by Rao (1953) in the theory of least squares. The result required for our purpose is quoted in the form of a theorem and proved for completeness.

VARIANCE AND CONFIDENCE INTERVAL ESTIMATION

Theorem: If $x_1, x_2, \dots, x_N$ be N observations on a variate x which is normally distributed with mean μ and standard deviation σ , then the distribution of

$$Z = \frac{\sum_{i=1}^n (x_i - \bar{x}_n)^2}{\sum_{i=1}^N (x_i - \bar{x}_N)^2}, \quad \dots \quad (32)$$

is that of a Beta variate with parameters $\frac{n-1}{2}$ and $\frac{N-n}{2}$, where $\bar{x}_n$ is the mean of the first n observations and $\bar{x}_N$ is the mean of all the N observations.

$$\begin{aligned} \text{Proof: } \sum_{i=1}^N (x_i - \bar{x}_N)^2 &= \sum_{i=1}^n (x_i - \bar{x}_n)^2 + \sum_{i=n+1}^N (x_i - \bar{x}_{N-n})^2 + n(\bar{x}_n - \bar{x}_N)^2 \\ &\quad + (N-n)(\bar{x}_{N-n} - \bar{x}_N)^2 \end{aligned}$$

where
$$\bar{x}_{N-n} = \frac{1}{N-n} \sum_{i=n+1}^N x_i.$$

Since
$$\bar{x}_N = \frac{n\bar{x}_n + (N-n)\bar{x}_{N-n}}{N},$$

$$\bar{x}_n - \bar{x}_N = \frac{N-n}{N} (\bar{x}_n - \bar{x}_{N-n}) \quad \text{and} \quad \bar{x}_{N-n} - \bar{x}_N = \frac{n}{N} (\bar{x}_{N-n} - \bar{x}_n).$$

Hence
$$n(\bar{x}_n - \bar{x}_N)^2 + (N-n)(\bar{x}_{N-n} - \bar{x}_N)^2 = \frac{n(N-n)}{N} (\bar{x}_n - \bar{x}_{N-n})^2$$

which when divided by σ^2 is a χ^2 with one degree of freedom, for

$$\sqrt{\frac{n(N-n)}{N\sigma^2}} (\bar{x}_n - \bar{x}_{N-n}) \quad \text{is} \quad N(0, 1).$$

Further, $\sum_{i=1}^n (x_i - \bar{x}_n)^2$ and $\sum_{i=n+1}^N (x_i - \bar{x}_{N-n})^2$ are $\chi^2\sigma^2$ with $n-1$ and $N-n-1$ degrees of freedom respectively. Z can be written as

$$Z = \frac{\chi_{n-1}^2}{\chi_{n-1}^2 + \chi_{N-n-1}^2}. \quad \dots \quad (33)$$

In this case χ_{n-1}^2 and χ_{N-n-1}^2 are independent. Hence the distribution of Z is a Beta distribution with parameters $\frac{n-1}{2}$ and $\frac{N-n}{2}$.

$$P \left\{ \frac{L_2}{L_1} < \delta \right\} = P \left\{ \frac{L_2^2}{L_1^2} < \delta^2 \right\} = P \left\{ Z < \frac{n-1}{N-1} \cdot \frac{t_{1\alpha}^2}{t_{2\alpha}^2} \delta^2 \right\} = I_x(p, q) \quad \dots \quad (34)$$

where
$$x = \frac{n-1}{N-1} \cdot \frac{t_{1\alpha}^2}{t_{2\alpha}^2} \delta^2, \quad p = \frac{n-1}{2}, \quad q = \frac{N-n}{2}$$

and
$$I_x(p, q) = \frac{\Gamma(p+q)}{\Gamma(p)\Gamma(q)} \int_0^x y^{p-1}(1-y)^{q-1} dy.$$

TABLE 4. GIVING THE DISTRIBUTION FUNCTION OF L_2/L_1 FOR $N = 100$ AND $n = 10, 20, 25$

δ	$P \left\{ \frac{L_2}{L_1} < \delta \right\}$		
	$n = 10$	$n = 20$	$n = 25$
.2	0.0002	—	—
.4	.0011	—	—
.6	.0184	0.0013	0.0003
.8	.1053	.0498	.0325
1.0	.3198	.3579	.3692
1.2	.6184	.8190	.8793
1.4	.8593	.9870	.9968
1.6	.9639	.9999	1.0000
1.8	.9944	1.0000	
2.0	.9995		
2.2	1.0000		

5. STRATIFIED SAMPLING

5.1. Let us now consider a case where the population is divided into strata and from each stratum n independent and interpenetrating sub-samples have been selected. Let y_{ij} be an unbiased estimate of μ_j , the j -th stratum total from the i -th sub-sample ($j = 1, 2, \dots, k$; $i = 1, 2, \dots, n$). The object is to set up confidence interval for $\mu = \sum_{j=1}^k \mu_j$, the population total. For this two methods have been suggested and their efficiencies compared.

5.2. Let us assume that y_{ij} is distributed normally with mean μ_j and standard deviation σ_j . Then an unbiased estimate of μ is given by $y = \frac{1}{n} \sum_{j=1}^k \sum_{i=1}^n y_{ij}$. In

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fact y is distributed normally with mean μ and variance $\frac{1}{n} \sum_{j=1}^k \sigma_j^2$. The following two estimates of this variance can be considered.

$$(i) \quad s_1^2 = \frac{1}{n(n-1)} \sum_{j=1}^k \sum_{i=1}^n (y_{ij} - \bar{y}_j)^2 \quad \dots \quad (36)$$

$$\text{and} \quad (ii) \quad s_2^2 = \frac{1}{n(n-1)} \sum_{i=1}^n (y_{i\cdot} - \bar{y})^2 \quad \dots \quad (37)$$

where
$$\bar{y}_j = \frac{1}{n} \sum_{i=1}^n y_{ij} \quad \text{and} \quad y_{i\cdot} = \sum_{j=1}^k y_{ij}.$$

The variance of these estimates have been compared in Section 3. If $\sigma_j = \sigma$ for all j , then $n(n-1) \frac{s_1^2}{k\sigma^2}$ and $n(n-1) \frac{s_2^2}{k\sigma^2}$ are distributed as χ^2 with $k(n-1)$ and $(n-1)$ degrees of freedom. Hence the statistics

$$t_1 = \frac{y - \mu}{s_1} \quad \text{and} \quad t_2 = \frac{y - \mu}{s_2} \quad \dots \quad (38)$$

will be distributed as Student's t with $(n-1)k$ and $(n-1)$ degrees of freedom respectively. If $t_{1\alpha}$ and $t_{2\alpha}$ are the α percentage points of t distribution with $k(n-1)$ and $(n-1)$ degrees of freedom respectively, then the lengths of the confidence intervals based on s_1 and s_2 are given by

$$L_1 = 2t_{1\alpha}s_1 \quad \text{and} \quad L_2 = 2t_{2\alpha}s_2.$$

If k is fairly large $t_{1\alpha} = 1.96$ and the Table 1 gives the ratio of $E(L_2)/E(L_1)$ for different values of n .

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ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES

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SUMMARY. The arrangement of the total sample in the form of interpenetrating net-works of sub-samples enables one to test by the method of analysis of variance the differential effects of the investigators (parties) and of other factors causing variation. Mahalanobis (1958) made the analysis of variance of four demographic variables, namely, the sex-ratio, the percentages of population in labour force, population literate, and population aged 50 years and above on the basis of the ninth round (May-November 1955) of the National Sample Survey, taking the estimates at the State level as the basic observation. In this note, the study has been extended by taking the estimates at the village level as the basic observation for the State of Uttar Pradesh. The same general conclusion emerges, namely, that there was no significant differential investigator effect, that is, that the survey was generally under statistical control.

1. INTRODUCTION

P. C. Mahalanobis (1958) had presented in a lecture series in Japan in 1958 the results of analysis of variance of four demographic variables, namely, sex-ratio (number of males per 100 females), percentage of population in labour force, percentage of literate population, and percentage of population aged 50 years and above. For each of the 19 States or State-groups, with two parties of investigators working in two time periods, the four party $\times$ time combinations were taken as the basic observation; and the analysis of variance was done within each State with the following partition:

	d.f.
time	1
party	1
error	1 (party $\times$ time)
total	3

For each of the characteristics, out of the 19 F -ratios for each of Party/Error and Time/Error, none or only one came out significant at 5 per cent level, which was as could be expected. The study has been extended in this note; the data for the State of Uttar Pradesh (rural) being analyzed separately for strata having 4, 8 and 12 sample villages each; the data for each village being taken as the basic observation.

2. SAMPLE DESIGN AND PROCEDURE

The design was two-stage stratified. Rural India was divided into 256 ultimate strata consisting of districts or groups of adjoining districts, and within each stratum the sample villages were allocated in proportion to its 1951 Census population; then the allocated numbers were adjusted to make them 4 or multiples of 4. That is, in other words, within each of the strata the sample villages, which were 4 (or multiples of 4) in numbers, were selected with probability proportional to 1951 Census population and with replacement; in each sample village thus selected, 10 households were selected systematically with a random start. The survey was so designed that in each State there were two independent "parties" of investigators, each working in two different time periods, consisting of three months each—mid-May to mid-August and mid-August to mid-November 1955. In Uttar Pradesh,

280 sample villages were selected from 46 strata—25 strata with 4 sample villages each, 18 strata with 8 sample villages each, and 3 strata with 12 sample villages each.

The arrangement of the total sample in the form of interpenetrating networks of sub-samples enables one to test by the method of Fisherian analysis of variance the effect of the investigators (parties) and of other factors causing variation (Mahalanobis, 1946). It is easy to write the mathematical models involved. W. G. Cochran (1953) has, for example, given two such models with parties and replications.

For the present study of analysis of variance, the characteristic for each sample village was taken as the basic observation. The analysis of variance was done with each of the 46 strata into which the State was divided with the following three different partitions:

(A) Within stratum having 4 sample villages each		(B) Within stratum having 8 sample villages each		(C) Within stratum having 12 sample villages each	
	d.f.		d.f.		d.f.
party	1	party	1	party	1
time	1	time	1	time	1
error	1 (party $\times$ time)	party $\times$ time	1	party $\times$ time	1
		error	4	error	8
total	3	total	7	total	11

The universe was not normal, and strictly speaking Fisher's F -ratio cannot be used to test the significance. The use of F may however, as made by Mahalanobis (1946, 1958), give approximate results.

3. RESULTS

Tables 1.1, 1.2, 1.3 and 1.4 give the analysis for sex-ratio, percentage of population in labour force, percentage of literate persons and percentage of population aged 50-above respectively for each of the stratum having 4 sample villages each; Tables 2.1, 2.2, 2.3 and 2.4 corresponding analysis for each of the stratum having 8 sample villages each; and Tables 3.1, 3.2, 3.3 and 3.4 that for each of the stratum having 12 sample villages each.

Table 4 shows the number of F -ratios significant at 5% level (as also those significant at 1% level) for each of the four demographic characteristics. Table 4 also shows for strata having 8 and 12 sample villages each, the number of significant (at 5% and 1% levels) F -ratios for party/(party $\times$ time) and time/(party $\times$ time): as the true "error" mean squares are available, these are shown only for illustrative purposes.

For the F -ratios time/(party $\times$ time) in strata with 4 sample villages each, out of the total 25 for each characteristic, a maximum of 3 significant F -ratios for sex-ratio among the four demographic characteristics is observed at 5% level. This may probably be due to the differential migration of the rural population in the two time periods. For the F -ratios time/error in the 18 strata with 8 sample villages each, one each has come out significant for the three characteristics—sex-ratio, percentage in labour force, percentage literate.

ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES

TABLE 1.1. ANALYSIS OF VARIANCE OF SEX-RATIO (100 MALES/FEMALES) BY STRATUM WITH FOUR VILLAGES

serial no.	stratum no.	sum of squares				F-ratio	
		total	party	time	error	party	time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	02	2901.90	373.65	664.61	1863.64	0.20	0.36
2	10	2274.47	2079.82	157.38	37.27	55.80	4.22
3	11	816.42	641.86	173.84	0.72	891.47*	241.44*
4	14	725.35	450.50	85.10	189.75	2.37	0.45
5	16	2879.68	50.77	1767.79	1061.12	0.05	1.67
6	17	1713.12	447.11	455.18	810.83	0.55	0.56
7	18	841.39	713.96	45.16	82.27	8.68	0.55
8	23	299.71	108.99	108.99	81.73	1.33	1.33
9	24	1029.13	57.08	707.83	264.22	0.22	2.68
10	25	728.17	22.85	684.35	20.97	1.09	32.63
11	26	357.92	25.71	280.23	51.98	0.49	5.39
12	27	5490.26	3503.46	1611.22	375.58	9.33	4.29
13	29	1530.73	484.88	40.96	1004.89	0.48	0.04
14	33	1319.17	719.05	418.82	181.30	3.97	2.31
15	34	1356.46	505.35	738.75	112.36	4.50	6.57
16	35	4304.03	964.72	409.25	2930.06	0.33	0.14
17	36	8321.41	456.89	2213.24	5651.28	0.08	0.39
18	39	799.90	132.83	665.90	1.17	113.53	569.15*
19	40	2778.32	1796.06	601.23	381.03	4.71	1.58
20	41	9149.90	2738.95	4138.99	2271.96	1.21	1.82
21	42	399.97	356.08	3.31	40.58	8.77	0.08
22	43	2395.65	310.11	2083.01	2.53	122.57	823.32*
23	44	2128.74	1674.44	16.64	437.66	3.83	0.04
24	45	827.95	51.05	686.17	90.73	0.56	7.56
25	46	233.78	146.41	70.56	16.81	8.71	4.20

*Significant at 5% level: $F 5\%(1,1) = 161.4$, $F 1\%(1,1) = 4052$.

TABLE 1.2. ANALYSIS OF VARIANCE OF PERCENTAGE OF POPULATION IN LABOUR FORCE BY STRATUM WITH FOUR VILLAGES

serial no.	stratum no.	sum of squares				F-ratio	
		total	party	time	error	party	time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	02	544.99	1.98	41.03	501.98	0.00	0.08
2	10	389.44	344.29	8.73	36.42	9.45	0.24
3	11	116.82	25.91	86.12	4.79	5.41	17.98
4	14	163.76	49.07	40.64	74.05	0.66	0.55
5	16	69.56	17.47	2.52	49.57	0.35	0.05
6	17	89.02	6.40	0.35	82.27	0.08	0.00
7	18	78.69	41.47	36.72	0.50	82.94	73.44
8	23	674.57	511.21	100.00	63.36	8.07	1.58
9	24	398.04	170.56	106.91	120.57	1.41	0.89
10	25	91.62	4.22	72.85	14.55	0.29	5.01
11	26	97.45	1.22	25.25	70.98	0.02	0.36
12	27	66.64	38.32	5.67	22.65	1.69	0.25
13	29	28.47	17.43	6.74	4.30	4.05	1.57
14	33	177.62	6.97	169.26	1.39	5.01	121.77
15	34	248.15	189.47	2.35	56.33	3.36	0.04
16	35	253.42	0.01	29.76	223.65	0.00	0.13
17	36	26.15	1.59	0.06	24.50	0.06	0.00
18	39	219.25	49.07	0.01	170.17	0.29	0.00
19	40	371.03	134.67	54.24	182.12	0.74	0.30
20	41	107.08	52.27	5.95	48.86	1.07	0.12
21	42	216.47	75.87	82.09	58.51	1.30	1.40
22	43	257.85	18.28	102.11	137.47	0.13	0.74
23	44	56.06	5.04	30.64	20.38	0.25	1.50
24	45	323.36	209.39	11.77	102.20	2.05	0.12
25	46	484.01	9.12	82.45	392.44	0.02	0.21

$F 5\%(1,1) = 161.4$, $F 1\%(1,1) = 4052$.

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TABLE 1.3. ANALYSIS OF VARIANCE OF PERCENTAGE OF LITERATE PERSONS BY STRATUM WITH FOUR VILLAGES

serial no.	stratum no.	sum of squares				F-ratio	
		total	party	time	error	party	time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	02	200.09	124.88	3.04	72.17	1.73	0.04
2	10	305.69	12.82	65.77	227.10	0.06	0.29
3	11	157.13	42.96	25.15	89.02	0.48	0.28
4	14	160.98	0.01	8.33	152.64	0.00	0.05
5	16	18.31	1.28	14.59	2.44	0.52	5.98
6	17	605.62	1.00	591.94	12.68	0.08	46.68
7	18	114.54	13.80	23.57	77.17	0.18	0.31
8	23	56.07	1.51	14.74	39.82	0.04	0.37
9	24	37.12	26.93	0.32	9.87	2.73	0.03
10	25	95.16	22.51	69.97	2.68	8.40	26.11
11	26	47.58	6.83	15.80	24.95	0.27	0.63
12	27	53.02	28.09	22.94	1.99	14.12	11.53
13	29	296.62	202.92	92.64	1.06	191.43*	87.40
14	33	62.17	14.03	45.10	3.04	4.62	14.84
15	34	160.59	66.91	81.36	12.32	5.43	6.60
16	35	679.32	85.10	421.69	172.53	0.49	2.44
17	36	34.96	10.96	14.52	9.48	1.16	1.53
18	39	192.58	0.00	154.01	38.57	0.00	3.99
19	40	101.57	64.16	1.17	36.24	1.77	0.03
20	41	479.57	45.97	0.96	432.64	0.11	0.00
21	42	208.16	140.07	66.67	1.42	98.64	46.95
22	43	594.66	43.04	173.71	377.91	0.11	0.46
23	44	222.59	166.28	55.88	0.43	386.70*	129.95
24	45	525.27	478.30	17.81	29.16	16.40	0.61
25	46	531.93	137.13	79.04	315.76	0.43	0.25

*Significant at 5% level: $F 5\%(1, 1) = 161.4$, $F 1\%(1, 1) = 4052$.

TABLE 1.4. ANALYSIS OF VARIANCE OF PERCENTAGE OF POPULATION AGED 50-ABOVE BY STRATUM WITH FOUR VILLAGES

serial no.	stratum no.	sum of squares				F-ratio	
		total	party	time	error	party	time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2	11.71	3.33	7.04	1.34	2.49	5.25
2	10	100.79	86.68	11.09	3.02	28.70	3.67
3	11	11.22	1.67	9.45	0.10	16.70	94.50
4	14	134.19	49.99	21.16	63.04	0.79	0.34
5	16	64.00	1.08	17.22	45.70	0.02	0.38
6	17	13.82	0.27	0.20	13.35	0.02	0.01
7	18	47.86	16.61	5.09	26.16	0.63	0.19
8	23	51.43	2.56	14.29	34.58	0.07	0.41
9	24	92.67	1.07	38.38	53.22	0.02	0.72
10	25	8.65	3.28	4.75	0.62	5.29	7.66
11	26	89.06	0.03	35.22	53.81	0.00	0.65
12	27	203.24	195.30	5.74	2.20	88.77	2.61
13	29	83.15	27.25	16.08	39.82	0.68	0.40
14	33	174.32	37.03	88.64	48.65	0.76	1.82
15	34	172.99	22.09	57.01	93.89	0.24	0.61
16	35	102.11	24.46	76.48	1.17	20.91	65.37
17	36	73.39	11.19	56.03	6.17	1.81	9.08
18	39	29.29	28.09	0.56	0.64	43.89	0.88
19	40	72.85	4.21	38.94	29.70	0.14	1.31
20	41	22.85	16.81	5.38	0.66	25.47	8.15
21	42	108.52	81.90	4.25	22.37	3.66	0.19
22	43	62.43	0.01	0.24	62.18	0.00	0.00
23	44	49.77	2.73	37.14	9.90	0.28	3.75
24	45	73.94	52.06	0.13	21.75	2.39	0.01
25	46	153.53	53.07	18.10	82.36	0.64	0.22

$F 5\%(1, 1) = 161.4$; $F 1\%(1, 1) = 4052$.

ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES

TABLE 2.1. ANALYSIS OF VARIANCE OF SEX-RATIO (100 MALES/FEMALES) BY STRATUM WITH EIGHT VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	01	5222.71	12.52	624.99	848.10	3737.10	934.28	0.01	0.67	0.91
2	05	8463.81	1097.46	1407.15	4584.99	1374.21	343.55	3.19	4.10	13.35*
3	06	3035.77	719.91	1471.80	146.81	697.25	174.31	4.13	8.44*	0.84
4	07	1669.52	0.02	8.67	981.04	679.79	169.95	0.00	0.05	6.77
5	08	3122.31	1315.33	111.90	674.92	1020.16	255.04	5.16	0.44	2.65
6	09	2532.98	204.93	73.99	1345.51	908.55	227.14	0.90	0.33	5.92
7	13	7100.04	4.31	723.33	3328.06	3044.34	761.08	0.01	0.95	4.37
8	15	12921.79	745.36	4001.54	624.47	7550.42	1887.60	0.39	2.12	0.33
9	19	2802.46	158.86	175.87	2008.20	459.53	114.88	1.38	1.53	17.48*
10	20	4292.98	100.32	742.47	699.94	2750.25	687.56	0.15	1.08	1.02
11	21	10136.74	177.19	381.02	3258.26	6320.27	1580.07	0.11	0.24	2.06
12	22	2878.22	24.19	373.61	65.26	2415.16	603.79	0.04	0.62	0.11
13	28	5476.28	175.78	1644.51	334.12	3321.87	830.47	0.21	1.98	0.40
14	30	2314.43	199.90	81.98	141.88	1890.67	472.67	0.42	0.17	0.30
15	31	5713.49	0.29	1838.91	1.76	3872.53	968.13	0.00	1.90	0.00
16	32	1525.15	190.90	69.73	57.79	1206.73	301.68	0.63	0.23	0.19
17	37	4764.12	139.36	611.62	726.38	3286.76	821.69	0.17	0.74	0.88
18	38	2456.63	840.29	43.47	5.57	1567.30	391.82	2.14	0.11	0.01

*Significant at 5% level: $F 5\%(1, 4) = 7.7$; $F 1\%(1, 4) = 21.2$.

TABLE 2.2. ANALYSIS OF VARIANCE OF PERCENTAGE OF POPULATION IN LABOUR FORCE BY STRATUM WITH EIGHT VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	01	1143.18	137.28	14.69	169.46	821.75	205.44	0.67	0.07	0.82
2	05	335.21	27.60	12.44	4.27	300.90	75.22	0.37	0.03	0.06
3	06	643.45	22.47	3.55	241.46	375.97	93.99	0.24	0.04	2.57
4	07	220.55	66.47	26.57	24.92	102.59	25.65	2.59	1.04	0.97
5	08	345.19	7.33	115.06	188.19	34.61	8.65	0.85	13.30*	21.76**
6	09	1622.14	6.23	0.23	410.41	1205.27	301.32	0.02	0.001	1.36
7	13	871.63	0.85	432.62	0.01	438.16	109.54	0.01	3.95	0.00
8	15	1087.72	33.66	260.26	7.91	785.89	196.47	0.17	1.32	0.04
9	19	397.37	97.65	5.57	12.47	281.68	70.42	1.39	0.08	0.18
10	20	693.08	173.26	4.16	102.60	413.06	103.26	1.68	0.04	0.99
11	21	595.59	472.78	8.04	84.81	65.96	16.49	28.67**	0.49	2.96
12	22	369.68	121.84	38.02	0.50	209.32	52.33	2.33	0.73	0.01
13	28	207.43	27.00	22.56	86.37	71.50	17.88	1.51	1.26	4.83
14	30	756.82	191.78	0.04	313.39	251.61	62.90	3.05	0.00	4.98
15	31	147.80	0.06	15.20	113.79	18.75	4.69	0.01	3.24	24.26**
16	32	149.76	41.45	16.16	13.91	78.24	19.56	2.12	0.83	0.71
17	37	235.25	12.78	34.32	91.46	96.69	24.17	0.53	1.42	3.78
18	38	720.66	65.49	41.36	354.18	259.63	64.91	1.01	0.64	5.46

*Significant at 5% level: $F 5\%(1, 4) = 7.7$.

**Significant at 1% level: $F 1\%(1, 4) = 21.2$.

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TABLE 2.3. ANALYSIS OF VARIANCE OF PERCENTAGE OF LITERATE PERSONS
BY STRATUM WITH EIGHT VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	01	2238.21	773.03	263.81	614.25	587.12	146.78	5.27	1.80	4.18
2	05	506.20	230.59	5.23	24.12	246.26	61.56	3.75	0.08	0.39
3	06	282.42	63.22	18.57	2.24	198.39	49.60	1.27	0.37	0.05
4	07	397.13	3.37	82.61	97.09	214.05	53.51	0.06	1.54	1.81
5	08	800.18	17.88	35.11	9.29	737.90	184.48	0.10	0.19	0.05
6	09	807.18	5.52	1.72	78.86	721.08	180.27	0.03	0.01	0.44
7	13	751.63	121.91	16.33	66.88	546.51	136.63	0.89	0.12	0.49
8	15	1017.07	45.60	719.34	2.67	249.46	62.36	0.73	11.54*	0.04
9	19	1025.91	33.78	4.47	217.99	769.67	192.42	0.18	0.02	1.13
10	20	592.94	0.50	16.76	44.37	531.31	132.83	0.00	0.13	0.33
11	21	249.16	4.02	45.74	17.97	181.43	45.36	0.09	1.01	0.40
12	22	224.76	58.54	30.26	5.95	130.01	32.50	1.80	0.93	0.18
13	28	504.41	0.92	19.75	136.70	347.04	86.76	0.01	0.23	1.58
14	30	371.28	64.24	74.11	28.17	204.76	51.19	1.25	1.45	0.55
15	31	396.90	8.72	108.42	95.28	184.48	46.12	0.19	2.35	2.07
16	32	699.75	104.98	129.61	129.76	335.40	83.85	1.25	1.55	1.55
17	37	335.34	101.24	17.40	91.00	125.70	31.42	3.22	0.55	2.90
18	38	2459.12	450.90	490.47	175.78	1341.97	335.49	1.34	1.46	0.52

*Significant at 5% level: $F 5\%(1, 4) = 7.7$; $F 1\%(1, 4) = 21.2$.

TABLE 2.4. ANALYSIS OF VARIANCE OF PERCENTAGE OF POPULATION AGED
50-ABOVE BY STRATUM WITH EIGHT VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	01	192.27	5.12	2.06	33.05	152.04	38.01	0.13	0.05	0.87
2	05	353.00	12.75	62.72	95.64	181.89	45.47	0.28	1.38	2.10
3	06	181.28	75.46	14.24	10.42	81.16	20.19	3.72	0.70	0.51
4	07	144.80	7.20	16.10	3.97	117.53	29.38	0.25	0.55	0.14
5	08	111.04	19.72	0.00	21.26	70.06	17.52	1.13	0.00	1.21
6	09	88.62	3.14	16.56	12.37	56.55	14.14	0.22	1.17	0.87
7	13	205.70	44.61	5.63	0.19	155.27	38.82	1.15	0.14	0.00
8	15	303.43	61.27	0.82	64.07	177.27	44.32	1.38	0.02	1.45
9	19	134.51	39.78	57.67	0.14	36.92	9.23	4.31	6.25	0.02
10	20	289.97	0.26	17.61	3.63	268.47	67.12	0.00	0.26	0.05
11	21	82.78	0.73	2.06	29.11	50.88	12.72	0.06	0.16	2.29
12	22	413.89	1.24	22.12	47.03	343.50	85.88	0.01	0.26	0.55
13	28	265.53	26.61	0.94	22.68	215.30	53.82	0.49	0.02	0.42
14	30	140.16	2.16	3.56	38.82	95.62	23.90	0.09	0.15	1.62
15	31	169.43	14.05	62.61	8.98	83.79	20.95	0.67	2.99	0.43
16	32	89.99	37.84	0.08	35.62	16.45	4.11	9.21*	0.02	8.67*
17	37	282.68	2.50	84.05	40.18	155.95	38.99	0.06	2.16	1.03
18	38	161.58	10.93	4.25	94.32	52.08	13.02	0.84	0.33	7.24

*Significant at 5% level: $F 5\%(1, 4) = 7.7$; $F 1\%(1, 4) = 21.2$.

ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES

TABLE 3.1. ANALYSIS OF VARIANCE OF SEX-RATIO (100 MALES/FEMALES) BY STRATUM WITH TWELVE VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	03	9301.76	40.89	1274.11	156.32	7830.44	978.81	0.04	1.30	0.16
2	04	11410.66	3604.93	91.57	9.99	7704.17	963.02	3.74	0.10	0.01
3	12	4933.24	31.83	568.42	92.68	4240.31	530.04	0.06	1.07	0.17

$F 5\%(1, 8) = 5.32$; $F 1\%(1, 8) = 11.26$.

TABLE 3.2. ANALYSIS OF VARIANCE OF PERCENTAGE OF POPULATION IN LABOUR FORCE BY STRATUM WITH TWELVE VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	03	1776.20	326.86	366.97	343.61	738.76	92.34	3.54	3.97	3.72
2	04	2109.63	16.05	568.84	9.82	1514.92	189.36	0.08	3.00	0.05
3	12	376.80	28.93	25.58	63.28	259.01	32.38	0.89	0.77	1.95

$F 5\%(1, 8) = 5.32$; $F 1\%(1, 8) = 11.26$.

TABLE 3.3. ANALYSIS OF VARIANCE OF PERCENTAGE OF LITERATE PERSONS BY STRATUM WITH TWELVE VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	03	821.94	72.90	25.05	105.48	618.51	77.31	0.94	0.32	1.36
2	04	888.79	20.53	107.88	96.56	663.82	82.98	0.25	1.30	1.16
3	12	1425.80	10.66	168.45	56.13	1190.56	170.08	0.06	0.99	0.33

$F 5\%(1, 8) = 5.32$; $F 1\%(1, 8) = 11.26$.

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TABLE 3.4. ANALYSIS OF VARIANCE OF PERCENTAGE OF POPULATION AGED 50-ABOVE BY STRATUM WITH TWELVE VILLAGES

serial no.	stratum no.	sum of squares					mean square for error	F-ratio		
		total	party	time	party × time	error		party	time	party × time
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	03	201.62	1.09	46.22	82.25	72.06	9.01	0.12	5.13	9.13*
2	04	523.25	94.68	0.21	16.92	411.44	51.43	1.84	0.004	0.33
3	12	268.09	15.67	85.33	0.36	166.73	20.84	0.75	0.409	0.02

*Significant at 5% level: $F5\%(1, 8) = 5.32$; $F1\%(1, 8) = 11.26$.

TABLE 4. NUMBER OF F-RATIOS SIGNIFICANT AT 5% AND 1% LEVELS CORRESPONDING TO THE FOUR DEMOGRAPHIC CHARACTERISTICS—SEX-RATIO, PERCENTAGE IN LABOUR FORCE, PERCENTAGE LITERATE, AND PERCENTAGE AGED 50-ABOVE—FOR UTTAR PRADESH (RURAL)

serial no.	number of villages in a stratum	number of strata	number of F-ratios significant at 5% level				
			P/PT	T/PT	P/E	T/E	PT/E
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
sex-ratio							
1	4	25	1	3	—	—	—
2	8	18	0	1	0	1	2
3	12	3	1	0	0	0	0
percentage in labour force							
4	4	25	0	0	—	—	—
5	8	18	1	1*	1*	1	1*
6	12	3	0	0	0	0	0
percentage literate							
7	4	25	2	0	—	—	—
8	8	18	0	1	0	1	0
9	12	3	0	0	0	0	0
percentage aged 50-above							
10	4	25	0	0	—	—	—
11		18	2	1	1	0	1
12	12	3	0	1	0	0	1

* Significant at 1% level.

ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES

For the F -ratios party/(party $\times$ time), in strata with 4 sample villages each, out of the total 25 for each characteristic, two for percentage literate and one for sex-ratio have come out significant at 5% level. For the 18 strata with 8 sample villages each, one F -ratio party/error for the percentage in labour force and one for percentage aged 50-above came out significant at 1% and 5% levels respectively; for strata with 12 sample villages, none of the F -ratios was significant at 5% level. The results are thus encouraging and indicate that the survey was under statistical control.*

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*Note by the Editor

It is possible to go a step further with the data given in Table 4 by arranging them in terms of "observed" and "expected" number of F -ratios in each category. This is shown in Table 4(A) given below.

Supplementary Table 4(A) added by Editor

NUMBER OF EXPECTED AND OBSERVED F -RATIOS WHICH ARE
STATISTICALLY SIGNIFICANT

serial no.	total number	number at levels of significance			
		5%		1%	
		observed	expected	observed	expected
(1)	(2)	(3)	(4)	(5)	(6)
sex-ratio					
1	50	4	2.5	0	0.50
2	90	4	4.5	0	0.90
3	15	1	0.75	0	0.15
(3.1) sub-total	155	9	7.75	0	1.55
percentage in labour force					
4	50	0	2.5	0	0.50
5	90	6	4.5	4	0.90
6	15	0	0.75	0	0.15
(6.1) sub-total	155	6	7.75	4	1.55
percentage literate					
7	50	2	2.5	0	0.50
8	90	2	4.5	0	0.90
9	15	0	0.75	0	0.15
(9.1) sub-total	155	4	7.75	0	1.55
percentage aged 50-above					
10	50	0	2.5	0	0.50
11	90	5	4.5	0	0.90
12	15	2	0.75	0	0.15
(12.1) sub-total	155	7	7.75	0	1.55
(12.2) total	620	26	31	4	6.2



Bureau of Educ. & Psyl. Research
(C. E. R. I.)

Date..... 2.3.81.....

Acc..... J 7.35.....

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It is clear that the observed numbers of F -ratios in each category (sex-ratio, percentage in labour force, percentage literate, percentage above 50 years) as well as for the data as a whole are less than the corresponding expected numbers at 5% and 1% levels of significance excepting for the sex-ratio at 5% level and the percentage in labour force at 1% level. This may be partly due to the fact that the F -distribution may not be the exact distribution appropriate to the ratios used here. However, the fact that the observed numbers are not widely different from but are generally only slightly less than the expected numbers makes it plausible to infer that the survey was carried out, on the whole, under statistical control.

P. C. Mahalanobis

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MACHINE PRODUCTION IN RELATION TO VOLUME AND CHARACTERISTICS OF OPERATIVE WORKLOAD

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SUMMARY. The important problem of loss of machine-time is considered in the present paper in various aspects in relation to operative workloads and workload characteristics, also evolving overall expressions for different set-ups.

1. INTRODUCTION

A considerable amount of work has been done to find out the expected loss of machine-time arising out of the incidence of simultaneous stoppages of machines due to delay in tending machines. However, much of the work is generally characterised by incomplete treatment or lack of realism, i.e., failure to take into account situations as they would arise in practice. It is proposed to consider various aspects of this incidence and try to evolve an overall expression for machine efficiency in terms of various characteristics of the operative workload, as close to the reality as possible.

The problem. When an operative has to mind more than one machine, the incidence of simultaneous stoppages leading to loss of machine-time due to delay in tending machine arises. Even if the operative notices the stoppages as soon as they occur and tries to attend to them immediately, machine-time will be lost (in case of simultaneous stoppages) on all machines stopped other than the one he is attending. In fact, in all situations where the operative may have to attend to more than one item of work simultaneously (whether on machine or otherwise) the work on all items except one will undergo a time-lag in attention and if this time-lag is in relation to a machine stoppage, it will result in loss of machine production. This effect is generally termed machine interference or synchronization of machine stoppages, though synchronization of work or some such title would be more indicative of the problem.

2. BASIC CONCEPTS AND CONSIDERATIONS

Random and systematic stoppages. Often the cases of systematic and random stoppages are dealt with separately or by treating all stoppages as random, which leads to incomplete treatment. When both types of stoppages are jointly treated in one set-up the effect of random stoppages and systematic stoppages has to be carefully considered.

If the operative is to attend the stoppages, random or systematic, as they arise and as he notices them, even systematic stoppages are in effect rendered random in relation to the ability of the operative to synchronize his attention to the stoppage. This indicates that stoppages can be treated as systematic stoppages only if (a) the systematic stoppages are attended first in preference to random stoppages or any

other ancillary work; (b) the stoppages are fairly precisely defined in relation to time, the variation (if any) being small enough in relation to frequency of all stoppages, so as to render synchronization of the operative's movements with the systematic stoppage (in preference to other work) possible and economical—economical from the point of view of (1) loss of machine-time due to other stoppages waiting during the period of tending to systematic stoppages (2) the operative having to leave any other work (pertaining to random stoppage or ancillary work) to attend to systematic stoppages, thereby increasing the overall workload due to necessity to repeat certain "motions" while resuming the work element left unfinished.

Staggered and unstaggered stoppages. The term "systematic stoppage" ordinarily refers to each individual stoppage being well defined in relation to time, thereby making it possible to predict (to varying degrees of accuracy) the incidence of such a stoppage. But if these systematic stoppages tend to coincide with each other, there will still be loss of machine-time. But for our purpose it is necessary to classify the stoppages in relation to ability of the operative to attend without loss of productive machine-time. This indicates classification of stoppages as staggered and unstaggered stoppages, the former referring to those stoppages which could be arranged in such a sequence that the same could be attended to as priority over other stoppages or work without loss of any productive machine-time.

In the same way, ancillary work can be classified as staggered and unstaggered work; the former being work which can be attended to in sequence without loss of machine-time, the rest of the work being classified in the latter category. Thus the work pertaining to staggered stoppages would form part of staggered work which may also include other work.

Synchronization of machine work and ancillary work. The aspect of loss of machine-time due to synchronization is often thought of only in terms of simultaneous machine stoppages. This is incorrect, for there may be work, not directly connected with a machine stoppage, but which may be preparatory to timely attention to machine so that if the former (though ancillary) is not attended to in time, it will lead to loss of machine-time. As such loss of machine-time can arise out of synchronization of machine stoppages as well as necessity of attention to other priority work.

Ancillary work. It is necessary to differentiate between ancillary work which may delay attention to machine stoppage from that which does not. For this purpose ancillary work is sometimes classified into tied, spread and concentrated work. This classification is not realistic, which is seen by the allocation of ancillary work between spread and concentrated categories by arbitrary rules in relation to ratio between intervals of successive items of ancillary work and average tending time for a stoppage or similar arbitrary criteria.

In relation to machine production it is necessary to distinguish between ancillary work which will adversely affect loss of machine-time or vice versa. This is satisfactorily met with by classification of ancillary work into staggered or unstaggered work, the staggered (ancillary) work consisting of work which is (a) flexible, i.e., which can be

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attended to at convenience (within limits possible to attain within the set-up) and (b) such that it can be left at any given point to attend to a machine stoppage without such process becoming on the whole relatively uneconomical (due to the increase in workload on account of necessity to repeat certain "motions" while resuming the work element left unfinished).

Rest allowance. Rest allowance, strictly speaking, is a part of the total "normal work" to enable an operative to do his work properly without becoming unduly tired. This factor is not often adequately treated. The rest allowance may be classified into similar categories as ancillary work, e.g., staggered and unstaggered, former being the quantum of allowance which the operative is to utilize subject to the process not contributing to loss of machine-time. A certain amount of rest for continuous time intervals will be necessary and this will constitute unstaggered rest allowance.

In view of this, it becomes necessary not only to determine the overall quantum of rest allowance on work at "normal speed" but also its distribution between what the operative may utilize under restriction and what he may enjoy at will, viz, staggered and unstaggered allowances in the above terminology. But for the purpose of rest allowance, terms restricted allowance and free allowance would be more suitable and for further discussion we shall use this terminology.

Variation in concentrations of workload factors. The loss of machine-time is usually expressed in relation to averages of various factors, e.g., types of stoppages, tending time for each type of stoppage, types of ancillary work etc. However, the deviation of these characteristics from the average at different times would have a bearing on the machine efficiency, because the loss over total working time based on average factors may not be the same as average of losses at different concentrations of workload characteristics. This would be particularly so when the workload required for all machines at certain times of work period tends to exceed the maximum available workload from the operative, so that a certain proportion of machines will remain idle throughout such a period, in addition to other normal losses of machine-time.

Machine production without operative attention If at any given stage, the operative is taken off attending to machines, each machine will still continue to run for some time before stopping, the duration of such continuation depending on characteristics pertaining to each set-up, viz., the average time between two consecutive stoppages for same machine. When the operative resumes attention, the process is reversed as he will have to put in considerable work before all machines commence work. On the whole, there will be a gain as long as the total machine work does not exceed operative capacity (detailed later). This aspect is not usually considered.

The two items of operative time when the operative will not attend machines are the free part of rest allowance and unstaggered part of ancillary work. If this is done in instalments, at each such instalment the above advantage will accrue. It will thus be seen that the greater the number of instalments over which such allowance is taken or such work is done, the greater the machine utilization provided total machine-work is less than operative capacity. Where the number of stoppages

per machine-hour is low, the running time between two consecutive stoppages is longer; and this advantage could be considerable.

Machine efficiency versus operative efficiency. The operative efficiency is often related to the machine efficiency by a conversion factor equal to proportion of time required to service stoppages for all machines under the operative. This is obviously incorrect as it fails to take account of interference factor due to synchronization of different work elements including stoppages and the rest allowance and ancillary work. The operative efficiency considered this way also gives an incorrect picture of the operative performance as it relates only to his machine tending work without considering ancillary work and rest allowance.

3. EXPRESSION FOR SYNCHRONIZATION OF STOPPAGES

We shall now proceed to find out an expression for synchronization of stoppages in the light of above analysis. Two cases arise, viz., (a) "Random set-up" where the operative attends to machine stoppages as and when they arise and (b) "Patrolling set-up" where the operative attends to stoppages by regular patrolling. These cases are separately dealt with.

Random set-up. Let a' = total duration of staggered stoppage per machine-hour; b' = total duration of unstaggered stoppages per machine-hour; c' = total duration of machine-stoppages due to synchronization per machine-hour; n = number of machines per operative; then probability of r machines (and only r) out of n machines being out of commission due to unstaggered (and hence equally probable) stoppages is

$$Pr = \frac{n!}{r!(n-r)!} b'^r (1-b')^{n-r}.$$

Let N_1 = number of staggered stoppages per machine-hour and N_2 = number of unstaggered stoppages per machine-hour; N = overall number of machine stoppages,—staggered or unstaggered,—per machine-hour; e_1 = average time in hours for tending unit machine stoppage of staggered type (including movement to machine); e_2 = average time in hours for tending unit machine stoppage of unstaggered type (including movement to machine); e = overall average time in hours for tending unit machine stoppage—staggered or unstaggered;

then

$$N_1 \times e_1 = a'; \quad N_2 \times e_2 = b';$$

$$N = N_1 + N_2; \quad e = \frac{N_1 \times e_1 + N_2 \times e_2}{N_1 + N_2} = \frac{a' + b'}{N_1 + N_2} = \frac{a' + b'}{N} \quad \text{or } Ne = a' + b'.$$

As unstaggered stoppages are equally probable, the number of stoppages of Pr type per machine-hour will be $N_2 Pr$.

Of these, the number of such unstaggered stoppages for any machine coinciding with a staggered stoppage will be $a' N_2 Pr$ and those not so coinciding will be $(1-a') N_2 Pr$ for each set of the stoppages* N_2 .

*By the very concept of staggered stoppages, these will occur one at a time.

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Where unstaggered stoppages coincide with a staggered stoppage, i.e., in case of a N_2Pr stoppage per machine-hour, the operative will first attend to the staggered stoppage during which time (average duration e_1) all r machines will be stopped while he attends to the staggered stoppage. Hence loss of synchronization time on this account for each such stoppage is re_1 . Subsequently he attends to r simultaneous unstaggered stoppages. Then while he attends to the first machine, $r-1$ machines are idle; when he attends to the second machine, $r-2$ are idle etc. As average attending time for this type of stoppage is e_2 , the total machine hours lost on account of synchronization for each such stoppage is

$$e_2(1+2+3+\dots+r-1) = \frac{r(r-1)e_2}{2}.$$

The total machine-time lost for each of the $a'N_2Pr$ stoppages is

$$re_1 + \frac{r(r-1)e_2}{2}.$$

As this is the time lost over the whole set-up of n machines per operative, the loss per machine due to synchronization for each one of the stoppages $a'N_2Pr$ (per machine-hour) is

$$\frac{2re_1 + r(r-1)e_2}{2n}$$

i.e., loss per machine-hour (for $a'N_2Pr$ stoppages) is

$$\frac{a'N_2Pr}{2n} (2re_1 + r(r-1)e_2).$$

On same lines, for attending each of $(1-a')N_2Pr$ unstaggered stoppages not coinciding with a staggered stoppage, the machine-time lost will be $\frac{r(r-1)e_2}{2}$ only, the contribution of which per machine being $\frac{r(r-1)e_2}{2n}$, i.e. loss per machine-hour $(1-a')N_2Pr$ stoppages) is $\frac{(1-a')N_2Pr}{2n} (r(r-1)e_2)$.

So total loss of machine-time due to synchronization per machine-hour for all N_2Pr non-staggered stoppages per machine-hour is

$$\frac{a're_1 N_2 Pr}{n} + \frac{r(r-1)e_2 N_2 Pr}{2n}$$

The total loss per machine-hour due to all stoppages of type Pr for values of $r = 1$ to $r = n$ will, therefore, be summation of values of expression above for range $r = 1$ to $r = n$. This can be shown to give: (see Appendix)

$$c' = b'^2 \frac{(2a'e_1 + (n-1)b'e_2)}{2e_2}.$$

The following specific cases arise :

(i) Where there are no unstaggered stoppages i.e. $b' = 0$, there is no synchronization loss, as is to be expected.

(ii) Where all stoppages are unstaggered, i.e., no staggered stoppages, synchronization is given by:

$$c' = b'^3 \frac{(n-1)}{2} = \frac{b'^3 n}{2} \left(1 - \frac{1}{n}\right) = \frac{b'^2 w}{2} \left(1 - \frac{1}{n}\right)$$

where w = machine workload per hour, or $\frac{b'^2 w}{2}$ approximately where n is large.

However, the following conditions are tacitly implied in the expressions above:

(a) the operative knows when any stoppage occurs; (b) attends to the stoppage as soon as possible after disposing of the immediate work at hand.

If he takes time to notice a stoppage and move to be in a position to tend it, separate allowance has to be made for the same. The average noticing time will depend upon the set-up, e.g., the number of machines, the area occupied, direct or implied signals for stoppage, etc. Such average time per stoppage could be converted to machine-hour basis for N stoppages per hour. If this is c_1 , the total loss due to synchronization of work will be $c' + c_1$ where c_1 is a constant of the set and c' is synchronization allowance as above.

Patrol set-up. In this set-up if the stoppages are precisely synchronized with reaching of the operative to the machine from the previous machine, which implies that stoppages as well as sequence and duration of stoppages are also properly synchronized, there will not be any synchronization loss of machine-time.

However, such a set-up is most unlikely in actual practice. In other cases let e_3 = average time to tend a machine stoppage (without ancillary walking — unlike for e_1 and e_2 in random set-up); e_4 = average time to move from one machine to another; t = cycle time to go round all machines, tending whatever stoppages there are when operative moves to the machine; N = number of stoppages per machine-hour.

A machine having stopped will not re-start until the operative attends to it on his round. So the operative has to attend to at most one stoppage per machine. As the average stoppages in cycle time t will be tN , the distribution between one or no stoppage on the round will depend upon value tN being ≥ 1 and distribution of frequency of stoppages per machine-hour of which N is an average. Let us assume that the frequency distribution of stoppages per machine-hour is such that the actual stoppages per machine-hour exceed value $1/t$ for q per cent cases; then qn machines will have a stoppage on each round and rest of the machines will have no stoppage.

Hence the time spent on round is $qne_3 + ne_4$ so that $t = qne_3 + ne_4$ or $q = \frac{t - ne_4}{ne_3}$.

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Now a stoppage may occur just after an operative leaves a machine or just before he arrives at next round, so that the average waiting time for each of qn stoppages is $t/2$. Hence total machine-time lost per round for all machines in time t is $qnt/2$ and machine-time lost per machine per hour is $d = qnt/2 \cdot \frac{0}{nt} = \frac{q}{2}$ or $\frac{t - ne_4}{2ne_3}$.

Selection of set-up. It is now possible to see whether the random set-up or the patrol set-up is preferable, being dependent upon magnitude of synchronization allowance in respective cases. It is also possible to have a mixed set-up where certain elements of work are done on patrol basis and others on random basis. It would, however, be simpler to work out such cases for a given set-up rather than for a general case.

4. OPERATIVE AND MACHINE EFFICIENCY

Quantum of ancillary work would generally depend on quantum of machine work and as such it is convenient to consider it in relation to machine-hour. Rest allowance could also be conveniently considered in relation to quantum of normal work. Let A = Total time for ancillary work per running machine-hour; R = Rest Allowance per unit normal work (machine and ancillary); As = Staggered ancillary work per running machine-hour; Au = Unstaggered ancillary work per running machine-hour; Rr = Restricted Rest Allowance per hour of normal work; Rf = Free Rest Allowance per hour of normal work.

So that

$$R = Rr + Rf; A = As + Au$$

Also let a = total duration of staggered stoppages per running machine-hour;

b = total duration of unstaggered stoppages per running machine-hour;

c = total duration of machine-stoppages due to synchronization per running machine-hour

so that

$$a' = a \div (1+a); b' = b \div (1+b); c' = c \div (1+c)$$

(a' , b' , c' being (as defined before) corresponding symbols per total machine-hour, i.e., running time plus stopped time).

The operative is busy on machines for $n(a+b)$ hours in $(1+a+b)$ hours for one hour of machine-running-time. For this the ancillary work for the operative will be $A \times n$ hours, so that the total work will be $n(a+b+A)$. The rest allowance for this work will be $R \cdot n(a+b+A)$ so that his total work (inclusive of earned rest) will be $n(a+b+A)(1+R)$ during time $(1+a+b)$.

It is obvious that where the required work in hours, viz. $n(a+b+A)(1+R)$ exceeds the period during which it is to be executed, viz. $1+a+b$, the operative will be unable to tend all machines and the number of machines corresponding to excess of workload over available time will be idle though the operative will be "occupied". Thus where

$$\frac{n(a+b+A)(1+R)}{1+a+b} \geq 1,$$

operative efficiency factor will be $P = 1$ or operative efficiency will be 100 with the machine idle factor (on this count, in addition to other cases for stoppages) being

$$1 - \frac{1+a+b}{n(a+b+A)(1+R)}$$

where
$$\frac{n(a+b+A)(1+R)}{1+a+b} \leq 1, \quad P = \frac{n(a+b+A)(1+R)}{1+a+b}$$

the operative efficiency being $100P$.

For convenience, let us denote the synchronization allowance per running machine-hour as p so as to cover both the random and partol set-up previously discussed, so that $p = c+c'$ or d as the case may be.

During time (in hours) $1+a+b+p$ (if operative is in attendance) each machine will be running on the average for one hour. But operative will not attend machine effectively for time Au , so that in effect machine runs for one hour during time (in hours) $1+a+b+p+Au$ or $1+p+(a+b+Au)$. Similarly, for rest allowance, so that each machine will run effectively for one hour during time (in hours) $1+p+(a+b+Au)(1+Rf)$, so that machine efficiency factor M is given

$$M = \frac{1}{1+p+(a+b+Au)(1+Rf)}.$$

The above is true only where the operative is not overloaded. In other cases, the extra time for which machines will be idle will have to be allowed, i.e., M will be reduced in the ratio of

$$1 - \frac{1+a+b}{n(a+b+A)(1+R)}.$$

Machine work without operative attention. This, however, does not take into consideration one aspect. Every time the operative stops attending machines (for periods Rf and Au) machines will keep running at least for some time. As there are N stoppages per running machine-hour, the average time T between two consecutive stops will be $1/N$.

Now two cases arise according to the duration of attention being withdrawn at a time, being equal to or greater than T and the same being less than T . In the former case, on an average, all machines will stop within time T , the stoppages being distributed all along the interval. If, however, the duration is only kT (k less than unity) only kn out of n machines will stop before the operative commences attention. Thus the average gain of machine time for each such interval will be $T/2$ or $kT/2$, i.e., $\frac{1}{2N}$ or $\frac{k}{2N}$ etc. as the interval is $\geq T$ (i.e. $1/N$).

When the operative resumes attention, the process is reversed. He will have to put in work equal to ne or kne in respective cases before all machines commence work, the average machine time lost being $\frac{ne}{2}$ or $\frac{kne}{2}$, which is (in random set-up)

$$\frac{n(a'+b')}{2N} \quad \text{or} \quad \frac{kn(a'+b')}{2N}.$$

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As such the average net gain in machine time is

$$\frac{1}{2N} (1-n(a'+b')) \quad \text{or} \quad \frac{k}{2N} (1-n(a'+b'))$$

for each interval of unstaggered ancillary work or free rest according as the interval is $\geq \frac{1}{N}$. Thus if the unstaggered ancillary work is done and free rest taken in l_1 and l_2 intervals, each of duration $\geq \frac{1}{2N}$, and in m_1 and m_2 intervals, each of duration $< \frac{1}{2N}$, the average duration being $\frac{k_1}{2N}$ and $\frac{k_2}{2N}$, the machine efficiency factor corrected for this effect will be given by:

$$M = \frac{1 + \frac{1}{2N}(l_1 + l_2 + m_1 k_1 + m_2 k_2)(1 - n(a' + b'))}{1 + p + (a + b + Au)(1 + Rf)}$$

where $p = c + c_1$ or d as the case be, c or d are synchronization factors and $a, b, c_1, l_1, m_1, k_1, l_2, m_2, k_2, Au, Rf$ are set-up constants as given earlier.

However, cases may arise, where operative spends a definite part of time per hour running time in unstaggered ancillary work or free rest allowance. In such cases, if $A'u$ = unstaggered ancillary work per operative hour, $R'f$ = free rest allowance per operative hour, he is effectively on machine work for $1 - A'u - R'f$ hours in every hour. When attending the machine, the machine runs for one hour during time $1 + p + a + b$ hours. Hence machine efficiency factor is

$$M' = \frac{(1 - A'u - R'f) + 1/2N(l_1 + l_2 + m_1 k_1 + m_2 k_2)(1 - n(a' + b'))}{1 + p + a + b}$$

and operative efficiency factor is $P' = (1 - R')(1 + R)$, where R' —total effective rest allowance per operative hour; R = total rest allowance per unit normal work.

Machine efficiency versus operative efficiency. From the expressions for the operative efficiency and the machine efficiency, it is seen that, in general, there is no simple relationship between the two.

Variation in concentration of workloads. Again, it has been shown that the machine efficiency will vary from time to time as actual rate of (a) stoppages, (b) ancillary work, (c) rest allowances vary. In fact, fluctuation in rest allowances would necessarily tend to be concentrated at certain periods and not at all evenly distributed. Even rate of stoppages could vary substantially. For individual cases, where necessary, correct average could be obtained by working out same for different variants within small intervals of time and finding out average over the cycle period for the given set-up.

5. GENERAL CONSIDERATIONS

Random set-up. For the sake of simplicity we shall restrict general discussions only to the random set-up where operative knows when a stoppage occurs and attends to it soon after disposing of work at hand, consideration of other cases being on parallel lines. We shall also presume all stoppages and ancillary to be unstaggered and rest allowance free so that

$$M = \frac{1 + \frac{1}{2N} (l_1 + l_2 + m_1 k_1 + m_2 k_2)(1 - n \overline{a' + b'})}{1 + c + (b + A)(1 + R)}$$

where $c = \frac{b'^3}{2} (n-1)$, or $M = \frac{1 + C}{1 + c + (b + A)(1 + R)}$

where $C = \frac{1}{2N} (l_1 + l_2 + m_1 \cdot k_1 + m_2 \cdot k_2)(1 - n \overline{a' + b'})$.

Operative speed versus machine production. It is interesting to see the effect of speed of operative on machine efficiency. In this, two cases arise, viz. (a) where operative works faster, but takes same rest allowance as a normal operative; (b) where operative works faster but compensates himself correspondingly by higher rest allowance. If s is the speed factor as compared to normal, M represents machine efficiency factor for normal speed, M_1 for case (a) and M_2 for case (b). We have

$$M = \frac{1 + C}{1 + c + (b + A)(1 + R)} ; M_1 = \frac{1 + C}{1 + c/s^3 + \frac{(b + A)(1 + R)}{s}}$$

$$M_2 = \frac{1 + C}{1 + c/s^3 + (b + A)(1 + R)} ; \frac{1 + C}{M_2} = \frac{1 + C}{M} - C \left(1 - s \frac{1}{s^3} \right)$$

and $\frac{1 + C}{M_1} = \frac{1 + C}{M_2} - (b + A)(1 + R) \left(1 - \frac{1}{s} \right) ;$

so that for $s \geq 1$, $\frac{1}{M_2} \geq \frac{1}{M}$ and $\frac{1}{M_1} \geq \frac{1}{M_2}$ i.e. $M \leq M_2 \leq M_1$.

Synchronization effect. The machine stoppage synchronization factor $\frac{b'^3(n-1)}{2}$ can be taken nearly as $b'^2 \frac{w}{2}$ for large n as discussed earlier. Thus it is of the order of square of b and its contribution to the cycle time and hence machine efficiency is secondary as compared to the machine tending factor b , the ancillary work A and rest allowance R . It is interesting to compare set-up of constant machine work, with different machine allocations and different proportions of ancillary work and rest allowance. Thus if $c=0$, we get:

serial no.	set-up			c			M		
	nb'	A	R	$n=2$	$n=4$	$n=8$	$n=2$	$n=4$	$n=8$
1	0.8	—	—	0.032	0.024	0.0035	0.698	0.825	0.906
2	0.8	—	0.1	0.032	0.024	0.0035	0.679	0.812	0.896
3	0.8	1.8	0.1	0.032	0.024	0.0035	0.656	0.794	0.883

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Thus even where synchronization factor does not change, machine efficiency factor changes due to effect of ancillary work and rest. Again with c reducing from 0.032 per machine-hour for $n = 2$ to 0.0035 for $n = 1$, the machine efficiency factor increases from 0.698/0.656 for $n = 2$ to .906/0.883 for $n = 8$. This again underlines the inadequacy of term 'Machine Interference' to indicate loss of machine time in different working set-ups.

Machine efficiency versus machine allocation. It can be shown that loss of efficiency per unit increase in machines allocation, with other factors constant, will be approximately $M^2 \frac{b^3}{2} \frac{1}{1+C}$ with previous notation.

Machine allocation at constant overall workload. Let us consider changes in set-up subject to the total workload, i.e., nb being constant. It can be shown that variation in efficiency factor for unit variation in n (subject to total workload being same) is approximately $\frac{M^2 b^2}{W} \frac{1+R}{1+C}$, if quantities of the order of $\frac{1}{n^3}$ and over are neglected in comparison to $\frac{1}{n^2}$. This is positive quantity so that machine efficiency improves with increase of n subject to workload being constant, i.e., with workload per machine-hour decreasing.

Low cost and high profit set-up. The machine efficiency expression can be used to find machine allocation suitable to give (a) lowest cost, or (b) maximum profits. The approach to this is discussed below.

The cost of running the machine will consist of two components, viz., (i) one depending on actual running of the machine (e.g. working parts); (ii) another independent of running of the machine (e.g. interest and depreciation). Let x_1 = cost of machine maintenance per machine-hour for items dependent on running of the machine; x_2 = cost of machine maintenance per machine-hour for items independent of running; y = cost per direct operative hour. Then total cost per hour per machine will be $x_1 M + x_2 + \frac{y}{n}$ and production per machine per hour will be KM units where K is a constant. Hence cost per unit product is $\frac{x_1 M + x_2 + y/n}{KM}$.

If S is taken as sales price per unit product and R as cost per unit other than machine and operative cost, profit per unit product is $\left(S - \frac{x_1 M + x_2 + y/n}{KM} - R \right)$ and that per unit machine hour is $KM \left(S - \frac{x_1 M + x_2 + y/n}{KM} - R \right)$.

While a theoretical solution for minima of cost and maxima of profits for above will be somewhat complicated, in practice it will be simple to draw a curve for these quantities Vs number of machines for a given n and choose the most suitable value of n .

Appendix

We give here expression for synchronization of stoppages referred in the body of the paper. Symbols a' , b' , c' used therein are referred here merely as a , b , c , only for simplicity, and should not be confused with symbols a , b , c , used in the body of the paper later.

1. c = Total loss of time per machine-hour due to synchronization

$$\begin{aligned} &= \sum_{r=1}^{r=n} r \frac{a r e_1 N_2 P r}{n} + \frac{r(r-1) e_2 N_2 P r}{2n} \\ &= \frac{a e_1 N_2}{n} \sum_{r=1}^{r=n} r P r + \frac{e_2 N_2}{2n} \sum_{r=1}^{r=n} (r(r-1) P r) = \frac{a e_1 N_2}{n} A + \frac{e_2 N_2}{2n} B \text{ say.} \end{aligned}$$

2. Then

$$\begin{aligned} A &= \sum_{r=1}^{r=n} r \frac{n!}{r!(n-r)!} b^r (1-b)^{n-r} = \sum_{r=1}^{r=n} \frac{n!}{(r-1)!(n-r)!} b^r (1-b)^{n-r} \\ &= \sum_{r=1}^{r=n} n b \frac{(n-1)!}{(r-1)!(n-r)!} b^{r-1} (1-b)^{n-r} = n b \sum_{r_1=0}^{r_1=n_1} \frac{n_1!}{r_1!(n_1-r_1)!} b^{r_1} (1-b)^{n_1-r_1} \end{aligned}$$

where

$$r_1 = r-1, n_1 = n-1, = n b (b + 1 - b)^{n_1} = n b.$$

3. Similarly

$$\begin{aligned} B &= \sum_{r=1}^{r=n} r(r-1) \frac{n!}{r!(n-r)!} b^r (1-b)^{n-r} = \sum_{r=2}^{r=n} \frac{n!}{(r-2)!(n-r)!} b^r (1-b)^{n-r} \\ &= \sum_{r=2}^{r=n} n(n-1) b^2 \frac{(n-2)!}{(r-2)!(n-r)!} b^{r-2} (1-b)^{n-r} \\ &= n(n-1) b^2 \sum_{r''=0}^{r''=n''} \frac{n''!}{r''!(n''-r'')!} b^{r''} (1-b)^{n''-r''} \end{aligned}$$

where

$$r'' = r-2, n'' = n-2, = n(n-1) b^2 (b + 1 - b)^{n''} = n(n-1) b^2.$$

4. Hence

$$\begin{aligned} c &= \frac{a e_1 N_2}{n} n b + \frac{e_2 N_2}{2n} n(n-1) b^2 = a b e_1 N_2 + \frac{(n-1)}{2} b^2 e_2 N_2 \\ &= a b e_2 N_2 \frac{e_1}{e_2} + \frac{n-1}{2} b^2 e_2 N_2 = a b b \frac{e_1}{e_2} + \frac{n-1}{2} b^2 b = a b^2 \frac{e_1}{e_2} + \frac{n-1}{2} b^3 \\ &= b^2 \left[\frac{2a e_1 + (n-1)}{2 e_2} b e_2 \right] \end{aligned}$$

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ECONOMIC REGIONALISM IN USSR

SOME REMARKS

By GALINA SDASIUK*

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SUMMARY. In this paper is discussed the significance of the principles of economic regionalism in planning for economic development. Experiences of the USSR have been described and examples of the application of the principle of economic regionalism have been given. It has been shown how the development of integrated economy, best suited for each region, results in maximum productivity with minimum capital and labour investments. Usefulness of the principle of economic regionalism for planning for economic development of India has been emphasized.

1. INTRODUCTION

The significance of the concept of economic regionalism was recognised in Russia as early as in the 18th century. Scientists like K.I. Arsenyev, the famous geographer, P. P. Semenov-Tyan-Shansky and D. I. Mendeleev made outstanding contributions on this subject. It should be noted that their objective was mainly academic, to divide the country into different regions for study. We find one main conclusion in all the studies—that economic regions exist in reality and the main aim of the scientists is not “to create” these regions but to identify them, and first describe their distinct characteristics.

It was only after the great October Socialist Revolution of 1917 that studies relating to economic regionalism, oriented to planning, started. Economic regionalism has become since then not only an approach to synthesise economic data but also a tool for economic reconstruction and regional planning.

2. THE NEED FOR REGIONALISATION IN USSR

The area of the USSR is the largest in the world; 22 million sq. km (8.8 million sq. miles) roughly 1/6 of the earth's surface, more than 7 times the area of India. The latitudinal and the longitudinal (36°N to the Arctic Circle and between 20°E and beyond 180°E longitude) extent of the Soviet territory is even more significant from the point of view of physical contrasts. Population of USSR is about 215 millions, nearly half of that of India, but in absolute terms definitely large in numbers. The Soviet Union consists of 15 Republics with different languages and nationalities. Besides, there are a number of autonomous national units. The whole population is distributed unevenly and there are sharp regional contrasts in population densities, an inevitable consequence of areal size, physical variations and history. Forestless tundra

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areas in the north; the taiga, the timber-store house of the world; the fertile steppe; the sub-tropical belt around the Black Sea and the hot sandy deserts of Central Asia are typical examples to indicate the magnitude in regional contrasts. Siberia has the greatest resource potential, e.g., hydro-electric power, minerals and timber in the whole country, while the most populous and developed area lies in the European part of the USSR. Partly due to physical and partly historical factors there are sharp contrasts in the distribution of the resource-potential and the pattern of economic development. Then the inference is that all parts of the country have not been developed to the same extent. All the more, this is the reason why regional planning and regional economic management are advocated as the most rational tools to minimise regional economic disparities and use regional resources to optimum level. The Soviet planners accepted and practised the regional principle in national planning, and accordingly recognised distinct economic geographical regions.

3. ECONOMIC REGIONALISM AND PLANNING

The first division of the USSR into economic regions was made along with the adoption of the very first plan of economic development of the country: the plan of the entire electrification of the State (GOELRO Plan—1920). This plan included the general electrification of the country, regionalisation for power-development and electrification of the main railway lines. In fact these are the three facets of the same problem. Electrical energy is consumed in all the modern production processes but its distribution from the main generating station is generally limited by a definite radius of transmission (250-300 miles) and this has a sharp regional dimension. While the maximum radius from the generating station constitutes the limit of the power region, resource potentialities (natural and economic) constitute its economic base.

The Planning Commission of the USSR (GOSPLAN) worked out the first and comprehensive project on economic regionalisation of the country in 1921. Thus regionalisation was the first step, and with full official recognition and sanction preceded planning. The First Five Year Plan was founded on economic-geographical regions. Thanks to the outstanding work of the Soviet scientists: G. M. Krzhizhanovsky, I. G. Aleksandrov and others, the main principles of economic regionalism were defined during the years 1920-1930. The Soviet Government accepted and applied these principles of regional delimitation in planning.

We shall now mention the main principles as formulated by the versatile Soviet scientist, N. N. Kolosovsky, late Professor of Geographical faculty, Moscow University, who elaborated and further developed the fundamental tenets of the GOELRO Plan and the regional scheme of GOSPLAN.

An economic region should have sufficiently large area and volume of output of resources in which the region specialises by virtue of its having most favourable geographical and technological conditions for production. This is the first major

ECONOMIC REGIONALISM AND PLANNING

principle. Thus regional and national ranking in area and output defines an economic region but not the region's geographic peculiarity.* In such a region, there is integration between different branches of production. The second major principle is that an economic region should be self-sufficient as far as possible, primarily to reduce the transport costs, which are bound to be high in a country of long distances. The assumption is that such a region has the necessary economic stability and viability.

The largest of the Soviet republics—Russia, Ukraine or Kazakastan cover several economic regions. The smaller republics can be combined into one economic region : for example, Georgia, Armenia and Azerbaijan form Transcaucasion region; Uzbekistan, Turkmenia, Kirgizia, Tajikistan form the region of Central Asia.

In the delimitation of economic regions it is necessary to understand the regional economic structure which is very complex, and is getting more and more complex with the modern developments in technology. It is instructive to mention that in the USSR, as estimated by experts in some cases, a single industry consumes about 1000 different types of minerals and 500 types of organic raw materials. Let us take the iron and steel industry for example. The moot point is along with the complex process of manufacture, expansion of an industry induces the development of a number of related industries like the bye-product industries, and thus an integrated industrial agglomeration develops. We have both "Vertical" and "Horizontal" combinations. Production of pig iron, steel, rolling, casting, machine manufacture or coking coal, benzol, aniline and dyes, plastic products, soda, etc., illustrate the "vertical" combination. Coking, coking gas—open-hearth process or non-ferrous metallurgy-manufacture of sulphuric acid, fertilizer industry—illustrate the "horizontal" combinations. Near the major and central plants, we find a number of auxiliary industries like the 'satellites'.

At this stage it is necessary to refer to the term 'production cycle' or 'cycle' introduced by Professor Kolosovsky, who defined it as "the total aggregate of production process developing in consecutive order in an economic region of the USSR on the basis of combination of definite type of power and raw materials. This aggregate includes processes from initial forms mining and refinery of raw materials—upto the production of all kinds of finished articles profitable to produce in the region in accordance with the principle of bringing industry nearer to the sources of raw materials and power and rational utilization of all components of resources of raw materials and energy." Basic processes of mass production determine the character of development of the whole economic region. Studying the problems of different types of regions Professor Kolosovsky established eight general power-production cycles which exist in the USSR. A few examples are given below :

(1) *Pyrometallurgical cycles based on ferrous metals.* In the USSR we have three main metallurgical bases where these cycles are leading. These are Donbass, Ural, Kuzbass.

* As about definition of an economic region there are different views and accordingly the regions differ. The number of economic regions proposed for the USSR varied from 13 to 29.

(2) *Hydro-energetic industrial cycles based on cheap large-scale electroenergy with its wide utilization in all production process.* The typical industries are electro-ferrous, non-ferrous and light metals (particularly aluminium), electrochemistry and thermo-electricity (manufacture of calcium carbide, electro-phosphorus, etc.). East Siberia is a typical example.

(3) *Group of cycles of processing industries, which develop in region of consumption with large population and internal market, located as a rule far away from sources of raw materials.* Usually, such regions depend on imported fuel, raw materials and half-finished products. The production-cycle consists of power-mechanical, power-chemical, thermo-energetical processes of mineral and organic raw materials including machine building—, ceramic industry, production of building materials, food, textile and other branches of light industry with all connecting "satellite" units, and industry processing waste materials. Here we have an example of "unity of diversity" founded on highly qualified labour. Due to advantageous situation raw materials are imported from many production regions. For instance the so-called Industrial Centre in the European part of the USSR depends on imported resources from almost all the economic regions in the country, particularly from Donbass, Ural and Central Asia.

4. *Group of agricultural-industrial cycles.* This includes industries processing agricultural raw materials—plants and animal fibres, leather industry, flower mills, sugar plants, creamery, oil-mills, etc. These industries have a local power base. Agricultural areas are characterised by this group of production cycles.

Each economic region usually has several types of power-production cycles mutually connected and located in more or less non-contiguous areas within the region. Cycles of processing industries exist in incomplete form as auxiliaries in regions of basic cycles like Ural and Donbass. In these regions we find also group of agricultural-production cycles which are necessary for local consumption. But there is a big difference in the significance of these groups. Basic cycles have the national importance, their products spread out over the whole country. Other cycles have only local importance; almost all their products are consumed within the regions. Some cycles are fully developed, while others are incomplete. It depends upon the resources of the region and its history of economic development. In due course, new cycles arise and mutual connections between branches of economy change, and as a result, the cycles become more and more complicated. But leading cycles of the region remain stable because they are founded on stable technological processes.

Each production cycle has its characteristic structure of expenditure. The expenditure of power, raw materials, labour and transport, capital investment, etc., are in definite proportions. Based on the production cycle targets, we cannot only delimit economic regions but also understand the tendency of economic growth in the region and the whole country. Each economic region has an interconnected group of production cycles representing the norm for that region. On the basis of this we can plan the development of each region.

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4. A TYPICAL EXAMPLE

East Siberia can be considered as one of the typical examples of the practical application of the planning on the theory of economic regionalism. The area of East Siberia is 1.8 million sq. km (203.1 thousand square miles) more than the area of France, England and Italy put together, and consists of three administrative units: Irkutskaya Oblast, Buryatskaya Autonomous Republic and Chitinskaya Oblast. The geographic centre of the region is the Baykal, deepest lake in the world while the city of Irkutsk, located on the banks of the Angara, nearly 60 kilometers west of the Baykal, is the historical, economic and cultural centre, accessible to the whole region.

East Siberia is the store house of first grade natural resources: coal, iron ore, non-ferrous metals, bauxite, magnesite, refractories and chemical raw materials particularly sodium chloride. The region has large resources of best timber. Added to this, both the terrain and the regime of the rivers are most favourable for the location of hydro-electric power stations. The head waters of the great Siberian rivers like the Angara, the Selenga, the Lena, the Amur and the Vitim lie in this region. But the basic limitations in the full development of these resources are the shortage of labour and inadequate transport facilities.

The construction of the great Urals-Kuznetsky combines the use of Ural iron ores with Cuzbass coal and the location of the second coal-metallurgical base constitute the first major step in shifting the centre of development from West to East.

It should be mentioned here that the hydro-electric power is the key for the economic development of Eastern Siberia, while electro-metallurgy, electro-chemistry, coal mining, timber and cellulose industry and machine building constitute the regional norms.

Due to large size and internal regional differences Eastern Siberia is divided into several sub-regions. The Irkutsk-Cheremhovo is one of the sub-regions rich in coal and hydro-electric power. While aluminium, ferro-alloy industries, machine building are localised near Irkutsk, Cheremhovo is specialising in coal-chemistry. The two centres are like the two poles (just over 80 miles apart) with a number of chemical and machine building plants, and food industry located in between. The significant principle that emerges from the above example is that a region should be developed according to the character of its production-cycle. The development of integrated economy, best suited for each region, results in maximum productivity with minimum capital and labour investments.

5. CONCLUSION

In a large country of sharp physical, economic and national differences like the USSR or India, regionalisation for planning is inevitable. The Russian planners recognised this rightly from the very beginning and first delimited economic regions.

It must be mentioned here that the principles of economic regionalism are being modified, and new methods to adopt to the changing economic conditions developed. Particularly after 1957, following the new decentralisation policy of the Soviet Government, economic regionalism has become a more powerful tool in economic reconstruction. In India there is a strong case for scientific regionalisation on all accounts. It is hoped that the Soviet experience in regionalisation for planning would be a pointer to Indian planners and geographers at least in general principles and approach.

ACKNOWLEDGEMENTS

The idea to prepare this paper emerged from my discussions with Professor P. C. Mahalanobis, F.R.S. and I am indeed obliged to him. I am thankful to Dr. V. L. S. Prakasa Rao of the Regional Survey Unit, Indian Statistical Institute, for his help and suggestions in the preparation of this paper.

BOOK REVIEWS

Introduction to Health Statistics : By Satya Swaroop, E & S Livingston Ltd., Edinburgh and London, 1960 ; Price 40s Net.

The author has been closely associated with various problems in the field of health statistics for the last quarter of a century and has been intimately acquainted with the statistical needs of public health workers. His association with the World Health Organization has, in addition, given him an opportunity of making a comprehensive study of the subject on an international plane. Above all, he has been a teacher in health statistics and this makes him admirably equipped to write a text book for medical and public health workers. The author explains in simple and elegant language the processes involved in the book-keeping of human lives, collection of health statistical data and simple techniques employed for their analysis and interpretation in meaningful terms for the promotion of community health.

The book is divided into three parts. Part I : Laying the Foundations, Part II : Health Statistics Administration, and Part III : Analysis and Presentation of Data. Part I deals with the methods of collection of data relating to census, vital statistics, notifiable diseases, morbidity and family health statistics. The author deals in detail with the needs for various types of health statistics, the sources of data, the usual pitfalls in the collection and compilation of data and the methods to improve the machinery for the collection of data.

Part II includes a description of the structure and functions of international statistical departments, health statistics legislation, organization of record card system and sampling in public health.

Part III includes nine chapters giving a comprehensive account of the methods of analysis and presentation of health statistics. They also include principles for the presentation of statistical results by charts and diagrams with illustrative examples. The author describes in detail classificatory methods of causes of death and morbidity, analysis of vital rates, construction of life tables, and measurement of morbidity. Besides these, this part includes a chapter on 'How to measure health' wherein the author has given a brief review of the attempts made to deal with the complex concept of community health in order to express it in terms of a limited number of indices.

The treatment of the subject on collection and analysis of health statistics presented in this book is quite adequate. The book shall be a valuable guide and a manual of reference to every public health worker. It may, however, be mentioned that the book could have been rendered a bit more lively for reading if the author had presented more illustrative examples. Although the book is primarily meant for those whose mathematical equipment is elementary it will be quite profitable for the highbrowed statistician also to study it thoroughly to acquaint himself with the methods of collection and uses of health statistics.

S. J. Poti

Die Axiomatischen Grundlagen Einer Allgemeinen Theorie Des Messens
(**The Axiomatic Bases of a General Theory of Measurement**) : By J. Pfanzagl ;
Physica-Verlag, Würzburg, Price 14 Marks.

The first two chapters of this booklet are devoted to a description of two basic scales, —the topological scale and the metrical scale, respectively. The descriptive style is simple, unlike that of the older pedantic German books. After this the author puts seven examples of applications. They are, (1) the additive marks (signs), (2) coordinate system on a straight line, (3) temperature measurement, (4) Centil-Scale, (5) measurements on tonal perceptions (subjective), (6) *F* measurement of subjective quantities by means of pairwise comparison of stimuli and (7) the measurement of subjective usefulness according to Morgenstern and Von Neumann. In this last mentioned example the author attempts to show that even the Morgenstern-Neumann method can be recognised as a special case of the general theory developed here. Lastly, the author has given detailed proofs of 24 points in an appendix. The relevant references to these points have been given in the body of the text, namely in the example.

R. L. Brahmachary

THE NATIONAL SAMPLE SURVEY

ELEVENTH AND TWELFTH ROUNDS
AUGUST 1956—AUGUST 1957

NUMBER 33

TABLES WITH NOTES ON
WAGES, EMPLOYMENT, INCOME AND INDEBTEDNESS OF
AGRICULTURAL LABOUR HOUSEHOLDS IN RURAL AREAS

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FOREWORD

This report on employment, wages, income and indebtedness, with a companion report on consumer expenditure, of agricultural labour households gives the results of the surveys conducted in the eleventh and twelfth rounds of the National Sample Survey during the period, August 1956—August 1957. These results provide comprehensive information about, roughly, a quarter of all rural households; and have been shown, to the extent possible, in a form comperable with the results of the Agricultural Labour Enquiry of 1950-51 conducted by the Ministry of Labour, Government of India.

The design used in the present surveys was an inter-penetrating network of four sub-samples (IPNS) drawn independently with replacement. The sub-samples were tabulated separately thus supplying four independent and equally valid sets of results; and sub-sample estimates have been given for some important characteristics. The "population" value of each characteristic may be expected, with a probability of 7 in 8, to lie between the maximum and the minimum of the four sub-sample estimates.

The general planning of the survey was the responsibility of a Working Party on Agricultural Labour which consisted of the following members: B. Ramamurti (Joint Director, Central Statistical Organisation), N. C. Kuppaswami (Joint Secretary to the Ministry of Labour), K. D. Chatterjee (Deputy Director, Labour Bureau), H. C. Ghosh (Chief Director, National Sample Survey); and Debabrata Lahiri, Ajit Das Gupta, Nimai Charan Ghosh and Ranjan Kumar Som of the Indian Statistical Institute. The design of the sample and the technical work was the responsibility of the Institute.

The data were collected by the Directorate of the National Sample Survey and processed in the Indian Statistical Institute. The report was prepared by Keshab Chandra Dutt, Gopal Bhattacharyya, Ajit Kumar Roy and G. Venkateswarlu. The various stages of processing work were done mainly under the supervision of Hari Bhajan Choudhury, Dhiren Sarkar (pre-punching processing and post-machine tabulation), Rajen Roy (punching), Kesab Chandra Poddar and Bibhuti Bhushan Chakrabarti (machine tabulation).

13 July 1960

P. C. MAHALANOBIS

TABLES WITH NOTES ON WAGES, EMPLOYMENT, INCOME AND INDEBTEDNESS OF AGRICULTURAL LABOUR HOUSEHOLDS IN RURAL AREAS

*This report entitled 'Tables with Notes on Wages, Employment, Income and Indebtedness of Agricultural Labour Households' was prepared by the Indian Statistical Institute, Calcutta and is being published in the form in which it was submitted to the Government of India and Government are not responsible for the views expressed in the report.**

CHAPTER ONE

INTRODUCTION

1.1. The National Sample Survey in its eleventh and twelfth rounds undertook, in addition to its regular enquiries, an all-India survey to collect information on wages, employment, income, expenditure and indebtedness of agricultural labour households.

1.2. A Working Party on agricultural labour consisting of the representatives of the Ministry of Labour and Employment, National Sample Survey Directorate, Central Statistical Organisation and the Indian Statistical Institute was responsible for the planning of the survey. One object of the survey was to make the results comparable with those of the Agricultural Labour Enquiry conducted by the Ministry of Labour in 1950-51, and to study the changes that have taken place in the conditions of the agricultural labour households during the intervening years.

1.3. In pursuance of a decision of the Working Party a pilot enquiry was conducted in April-May 1956 in 24 sample villages spread over 15 States (pre-reorganisation) with a view to pretesting some of the concepts and definitions.

1.4. The field work of the main survey started towards the end of August 1956 and continued for a year without any break between the two rounds each of which was of six months' duration. The survey covered the entire rural area of

* The draft report (No. D. 31) was submitted to the Government of India in September 1958 and its supplement, containing ALE zone tables, was submitted in October 1959.

India excluding the Islands. In all, 3696 sample villages were included in this survey. Information was collected by interviewing the sample households in the selected villages.

1.5. This report presents the results of the survey relating to wages, employment, income, and indebtedness of agricultural labour households for which information was collected in Schedule 10.1 of the eleventh and twelfth rounds of NSS. Information on consumer expenditure which was collected in a separate schedule, Schedule 1.1 of the eleventh and twelfth rounds, will be brought out separately.

1.6. Chapter Two of this report gives a brief account of the sample design of the survey. Some of the more important concepts and definitions used in the survey are explained in Chapter Three. The results of the survey are presented in the Statistical Tables at the end of the report for

- (a) all India,
- (b) five zonal Council Areas,
- (c) fourteen States (reorganised) and
- (d) thirty-eight ALE zones (reorganised).

All-India estimates are also presented separately for Community Project Areas and other than Community Project Areas. In presenting the results, two of the Union Territories, Manipur and Tripura have been merged with the adjoining State, Assam; while Delhi and Himachal Pradesh, the other two Union Territories, have been merged with the neighbouring State, the Punjab. The Statistical Tables are divided into two parts. The tables for the ALE zones are given in Part Two of the Statistical Tables while those for the other areas are given in Part One. It will be seen that some of the estimates given in Part One involving detailed breakdown are not presented for the ALE zones as the number of sample units from which these estimates are to be obtained at the ALE zone level is so small that these estimates would have a very wide margin of error. A brief note on the method of estimation and reliability of estimates is given in Appendix I. The composition of ALE zones is indicated in Appendix II and the facsimile of the schedules for this survey forms Appendix III.

CHAPTER TWO

SCOPE AND SAMPLE DESIGN

2.1. The whole of India with the exception of the Islands—Andaman, Nicobar, Amindive and Laccadive—was covered in the eleventh and twelfth rounds of the National Sample Survey. The results given in this report, however, relate to the rural areas only, and a brief description of the sample design as adopted for the rural areas is given below. Though the survey was divided into two rounds it was designed as a single continuous survey.

2.2. The entire rural area of the country was divided into 72 strata; and sampling was done in two stages. Stratification was carried out by dividing the rural areas, in the first instance, into 39 primary strata, designated as ALE zones. These zones were so formed as not to cut across the boundaries either of the States (pre-reorganisation) or of the 75 zones into which the rural areas were divided for purposes of stratification during the previous Agricultural Labour Enquiry. In forming these zones it was also ensured that the proportion of agricultural labourers and their dependents in each zone was not less than 1 per cent of the total rural population of the zone according to the 1951 census data. These 39 zones were further sub-divided into 72 ultimate strata, each consisting of a group of districts which were more or less homogeneous with respect to the proportion of agricultural labourers and their dependents to the total rural population. The rural population in each stratum was approximately of the same size with a few exceptions.

2.3. In the first stage of sampling, a number of villages were selected from each stratum with probability proportional to the population of the village and with replacement, the number of villages sampled from a stratum being made proportional to the rural population of the stratum subject to the restriction that the number of sample villages in each stratum would be a multiple of 48. This method of selection and allocation made it possible for the whole survey to be divided into 12 independent sub-rounds of equal size, each being representative of the entire rural area. These sub-rounds were arranged to be covered consecutively—each within a period of one month; and were, thus, utilised for ensuring uniform distribution of samples over time. It was also possible to have four independent sets of sample villages in each stratum for each monthly sub-round, the four sets containing an equal number of sample villages. This enabled the survey to be conducted in 4 interpenetrating sub-samples of the same size, providing 4 independent sets of estimates¹. The total number of villages sampled was 3696, the number of sample villages for each monthly sub-round being 308.

¹ In the eleventh and twelfth rounds, unlike in other recent NSS rounds, the different interpenetrating sub-samples were not allocated to separate investigating teams for investigation. The interpenetrating sub-samples used in these two rounds were independent with regard to selection but not with regard to investigators.

2.4. Table (2.1) shows the allocation of sample villages to different States and population zones. 56 sample villages, constituting 1.54 per cent of the total number of sample villages, could not be surveyed for some reason or other. Out of these 56 sample villages 48 were substituted by other sample villages. A

TABLE (2.1): ALLOCATION OF SAMPLE VILLAGES TO STATES AND POPULATION ZONES

States and population zones	number of sample villages
(1)	(2)
1. Uttar Pradesh	624
2. North India	624
3. Assam, Manipur and Tripura	144
4. Bihar	384
5. Orissa	144
6. West Bengal	240
7. East India	912
8. Andhra	192
9. Madras	288
10. Mysore and Coorg	96
11. Travancore-Cochin	96
12. South India	672
13. Bombay	288
14. Saurashtra and Kutch	48
15. West India	336
16. Hyderabad	192
17. Madhya Bharat and Bhopal	144
18. Madhya Pradesh	192
19. Vindhya Pradesh	48
20. Central India	576
21. Jammu and Kashmir	192
22. PEPSU	48
23. Punjab, Delhi and Himachal Pradesh	144
24. Rajasthan and Ajmer	192
25. North-West India	576
26. all India	3696

substitute was chosen at random from amongst the other sample villages belonging to the same stratum and the same monthly sub-round as the one for which substitution was made. For the remaining 8 sample villages no substitution was made as they constituted all the sample villages of a stratum for two monthly sub-rounds. One stratum was not thus represented in the sample for two out of twelve monthly sub-rounds.

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

2.5. For each sample village, a list was prepared of all households residing in the village. While listing the households information was collected about the 'household means of livelihood' of each household so that it was possible to distinguish the agricultural labour households from other households¹. In the second stage of sampling, a set of households were selected in a systematic manner with a random start from the agricultural labour households of each sample village. The number of agricultural labour households selected from a sample village was determined in such a way that the average number of sample households per sample village would be nearly 6, while the number of sample households in a sample village would vary according to the proportion of agricultural labour households in the village subject to a maximum of 8 and a minimum of 4 (unless the total number of agricultural labour households in the village was less than 4 in which case all the agricultural labour households were selected)². The total number of sample households for this survey was 20,720.

2.6. With the reorganisation of States coming into effect on 1 November 1956, some of the ALE zones were to be reconstituted so that they do not cut across the boundaries of the reorganised States. Thus reconstituted, the ALE zones ultimately numbered 38. Though the stratification was made on the basis of the States and ALE zones, as they were prior to the reorganisation of States, estimates have been made for the reorganised States and ALE zones and for the Zonal Council Areas. The method of estimation used is, however, such as to yield estimates for the reorganised areas statistically as valid as those for the areas on the basis of which stratification was made. But as the boundaries of the reorganised areas cut across some of the strata, the estimates made do not get the full advantage of stratification and they are, perhaps, somewhat less precise than what they would have been, had the stratification been made on the basis of the reorganised areas. The same is true for the estimates of the Community Project Areas and other than Community Project Areas as these also cut across the strata.

2.7. Table (2.2) shows the distribution of sample villages and sample households over the reorganised States and Zonal Council Areas. Out of a total of 3688

¹ The means of livelihood which constituted the major source of income of a household during the reference year was considered to be the household means of livelihood for that household. The households having agricultural wage-employment as the household means of livelihood were defined as agricultural labour households. Definition of agricultural wage-employment is given in Chapter Three.

² The procedure for determining the number of agricultural households to be selected from a sample village was as follows: The number was made equal to the nearest whole number given by the product $M \times p \times 6$ subject to a maximum of 8 and a minimum of 4 (unless the total number of agricultural labour households in the village was less than 4 in which case all the agricultural labour households were selected) where p was the proportion of agricultural labour households in the sample village, and M was the rural population of the stratum divided by the agricultural labour population (with their dependents) in the stratum. This procedure, while keeping the average number of sample households per sample village round about 6, made the number of sample households in a sample village vary according to the density of agricultural labour population in the sample village relative to that of the stratum.

sample villages surveyed, 1338 are in the Community Project Areas for which separate estimates are given. The number of sample households in the Community Project Areas is 7232.

TABLE (2.2) : DISTRIBUTION OF SAMPLE VILLAGES AND SAMPLE HOUSEHOLDS

reorganised States and zonal council areas	number of sample villages	number of sample households
(1)	(2)	(3)
1. Uttar Pradesh	624	3751
2. Madhya Pradesh	328	1822
3. Central Zone	952	5573
4. Bihar	373	2190
5. West Bengal	251	1526
6. Orissa	144	1010
7. Assam, Manipur and Tripura	136	488
8. Eastern Zone	904	5214
9. Andhra Pradesh	295	2041
10. Madras	242	1626
11. Kerala	124	734
12. Southern Zone	661	4401
13. Bombay	412	2543
14. Mysore	183	1258
15. Western Zone	595	3810
16. Rajasthan	192	583
17. Punjab, Delhi and Himachal Pradesh	192	986
18. Jammu and Kashmir	192	162
19. Northern Zone	576	1731
20. all India	3688	20720

CHAPTER THREE

CONCEPTS AND DEFINITIONS

3.1. Some of the more important concepts and definitions used in this survey are explained in this chapter.

3.2. *Household* : A household consists of a group of persons who normally pass nights under the same roof and normally take food from the same kitchen. A household thus excludes guests but includes temporary absentees.

3.3. *Agricultural labour household* : A household for which agricultural wage-employment constitutes the major source of income during the reference year is defined as an agricultural labour household.

3.4. In accordance with the definition given in the Minimum Wages Act, 1948, agricultural wage-employment is defined as employment, in the capacity of a labourer on hire (whether paid in cash, in kind or partly in cash and partly in kind) or on exchange, in any form of farming, including the cultivation and the tillage of the soil, dairy farming, the production, cultivation, growing and harvesting of any horticultural commodity, the raising of livestock, bees or poultry, and any practice performed on a farm as incidental to or in conjunction with the farm operations (including any forestry or timbering operations and the preparation for market and delivery to storage or to market or to carriage for transportation to market of farm products).

3.5. *Agricultural labourer* : An agricultural labourer is one who derives the major part of his income during the reference year from agricultural wage-employment.

3.6. *Attached and casual agricultural labourers* : Agricultural labourers are divided, as in the Agricultural Labour Enquiry of 1950-51, into two broad categories, attached and casual. Attached labourers are defined as those who are in more or less continuous employment and are under some sort of contract with employers during the period of employment. Casual labourers are labourers other than attached; they are employed from time to time according to exigencies of work.

3.7. Agricultural labour households are also divided into two broad categories, attached and casual, according to the type of agricultural wage-employment from which the income obtained by the household during the reference year is higher.

3.8. *Households with land* : Households with cultivated land are described in the tables as households with land and those without cultivated land as households without land. Cultivated land comprises of net area sown during the last agricultural year (including orchards) plus current fallow. Net area sown is the total land possessed minus (i) forest areas; (ii) barren and uncultivable wastes; (iii) land put to non-agricultural uses; (iv) cultivable wastes; (v) permanent pastures and other grazing land; (vi) miscellaneous tree crops, excluding orchards; and (vii) all types of fallow land. Current fallows are lands usually growing crops but which

remained fallow during the last agricultural year. The total land possessed by a household is constituted of all lands owned by the household plus lands leased in minus lands leased out by the household.

3.9. *Children* : Persons below 15 years of age are treated as children.

3.10. *Earners* : Earners are those who earn something, however meagre, and include earning dependents also.

3.11. *Employment and unemployment* : In order to make the employment and unemployment data comparable with those of the Agricultural Labour Enquiry of 1950-51, participation in gainful work is treated as employment while non-participation in gainful work, for any reason whatever, is treated as unemployment. All estimates concerning employment and unemployment relate to the period, August 1956–August 1957. The reference period for collecting information relating to employment and unemployment was one week preceding the date of enquiry.

3.12. *Wages* : Wages include the imputed value of perquisites also. But in determining the mode of wage payment in Table (10) of Part One and Table (13) of Part Two, perquisites are not taken into consideration. All estimates concerning wages relate to the period, August 1956–August 1957, and are based on information collected for a reference period of one week preceding the date of enquiry.

3.13. *Income* : In Table (16) of Part One and Table (11) of Part Two, estimates of income from gainful occupations are given under the heads 'cultivation of land', 'agricultural wage-employment', 'non-agricultural wage-employment' and 'occupations other than farming', while unearned incomes are included under 'other sources'. Income estimates under 'cultivation of land' and 'occupations other than farming' relate to the agricultural year, July 1955–June 1956, which is also the reference period for collection of the data on which these estimates are based. The other estimates relate to the survey period, August 1956–August 1957. But while the estimates of income from 'agricultural wage-employment' and 'other than agricultural wage-employment' are based on data collected for a reference period of one week preceding the date of enquiry, the reference period for collecting information relating to income from 'other sources' was one month preceding the date of enquiry.

3.14. 'Monthly average' in Table (15) of Part One is the weighted average of the average figures given in the same table for the 12 calendar months, the weights being the number of days in the months. This method of deriving the average for the year might yield results to some extent different from those obtained in the earlier tables where the average for the year is calculated from the data for the 12 months taken together.

3.15. '–' is used in the body of the tables to indicate 'nil', except in the case of wage-rates where it indicates non-availability of sample units from which the wage-rate can be calculated. The estimates are calculated correct to 2 places of decimal. In the case where the estimate has a non-zero value but, when rounded off to 2 places of decimal, has no significant digit, it is calculated beyond the second place of decimal up to the first significant digit and written in an abbreviated form, e.g., 0.0002 is written as 0.0³2.

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WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

PART ONE

STATES, ZONAL COUNCIL AREAS AND ALL INDIA

TABLE (0) : DISTRIBUTION OF SAMPLE VILLAGES AND SAMPLE HOUSEHOLDS

region	number of sample villages	number of sample households
(1)	(2)	(3)
1. Uttar Pradesh	624	3751
2. Madhya Pradesh	328	1822
3. Central Zone	952	5573
4. Bihar	373	2190
5. West Bengal	251	1526
6. Orissa	144	1010
7. Assam, Manipur and Tripura	136	488
8. Eastern Zone	904	5214
9. Andhra Pradesh	295	2041
10. Madras	242	1626
11. Kerala	124	734
12. Southern Zone	661	4401
13. Bombay	412	2543
14. Mysore	183	1258
15. Western Zone	595	3801
16. Rajasthan	192	583
17. Punjab, Delhi and Himachal Pradesh	192	986
18. Jammu and Kashmir	192	162
19. Northern Zone	576	1731
20. all India	3688	20720
21. Community Project Areas	1338	7232
22. other than C.P. Areas	2350	13488

TABLE (1) : PERCENTAGE DISTRIBUTION OF AGRICULTURAL LABOUR HOUSEHOLDS BY CATEGORY OF HOUSEHOLD AND PERCENTAGE OF AGRICULTURAL LABOUR HOUSEHOLDS TO TOTAL RURAL HOUSEHOLDS

region	category of household						percentage of agri-cultural labour households to total rural households	number of sample households villages				
	casual		attached		all							
	with land	without land	total	with land	without land	total						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Uttar Pradesh	29.89	34.40	64.29	24.44	11.27	35.71	54.33	45.67	100.00	17.00	3751	624
2. Madhya Pradesh	25.48	36.36	61.84	13.43	24.73	38.16	38.91	61.09	100.00	24.72	1822	328
3. Central Zone	28.13	35.18	63.31	20.05	16.64	36.69	48.18	51.82	100.00	19.42	5573	952
4. Bihar	31.71	22.80	54.51	29.46	16.03	45.49	61.17	38.83	100.00	29.44	2190	373
5. West Bengal	28.56	56.06	84.62	4.83	10.55	15.38	33.39	66.61	100.00	24.35	1526	251
6. Orissa	45.42	35.47	80.89	7.62	11.49	19.11	53.04	46.96	100.00	30.76	1010	144
7. Assam, Manipur and Tripura	14.14	27.51	41.65	15.54	42.81	58.35	29.68	70.32	100.00	17.67	488	136
8. Western Zone	32.80	33.14	65.94	18.62	15.44	34.06	51.42	48.58	100.00	27.03	5214	904
9. Andhra Pradesh	28.27	54.98	83.25	4.76	11.99	16.75	33.03	66.97	100.00	36.09	2041	295
10. Madras	30.17	54.82	84.99	4.34	10.67	15.01	34.51	65.49	100.00	35.60	1626	242
11. Kerala	52.20	34.14	86.34	3.89	9.77	13.66	56.09	43.91	100.00	24.87	734	124
12. Southern Zone	31.89	52.44	84.33	4.48	11.19	15.67	36.37	63.63	100.00	34.07	4401	661
13. Bombay	23.81	57.46	81.27	3.28	15.45	18.73	27.09	72.91	100.00	26.06	2543	412
14. Mysore	31.97	56.38	88.35	2.56	9.09	11.65	34.53	65.47	100.00	27.55	1258	183
15. Western Zone	26.46	57.11	83.57	3.05	13.38	16.43	29.51	70.49	100.00	26.52	3801	595
16. Rajasthan	31.52	52.70	84.22	4.28	11.50	15.78	35.80	64.20	100.00	5.45	583	192
17. Punjab, Delhi and Himachal Pradesh	5.61	45.08	50.69	5.35	43.96	49.31	10.96	89.04	100.00	11.61	986	192
18. Jammu and Kashmir	4.52	23.54	28.06	28.25	43.69	71.94	32.77	67.23	100.00	0.95	1162	192
19. Northern Zone	13.34	47.17	60.51	5.22	34.27	39.49	18.56	81.44	100.00	8.04	1731	576
20. all India	29.86	43.62	73.48	11.78	14.74	26.52	41.64	58.36	100.00	24.55	20720	3688
21. Community Project Areas	29.02	44.54	73.56	11.18	15.26	26.44	40.20	59.80	100.00	24.08	7232	1338
22. other than C.P. Areas	30.28	43.15	73.43	12.08	14.49	26.57	42.36	57.64	100.00	24.79	13488	2350

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (2) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF AGRICULTURAL LABOURERS BY CATEGORY OF WORK

region	employed in				unemployed due to							number of			
	wage employment			self-employment	total	want of work	own sickness	weather condition	house-work, cere- monials	leave, rest, holiday	other reasons	total	sample persons	house-holds	number of sample villages
	agricul- tural	non- agricul- tural	sub- total												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1. Uttar Pradesh	147.78	26.67	174.45	49.65	224.10	49.14	10.32	2.46	15.84	2.12	61.02	140.90	6963	3751	624
2. Madhya Pradesh	176.86	18.84	195.70	37.32	233.02	46.35	6.22	0.94	16.95	4.54	56.98	131.98	4223	1822	328
3. Central Zone	160.66	23.20	183.86	44.19	228.05	47.90	8.50	1.79	16.33	3.19	59.24	136.95	11186	5573	952
4. Bihar	165.14	23.02	188.16	27.72	215.88	86.09	9.51	3.68	8.27	2.26	39.31	149.12	4194	2190	373
5. West Bengal	180.81	51.54	232.35	23.45	255.80	73.71	8.46	2.58	7.19	1.39	15.87	109.20	2246	1526	251
6. Orissa	139.01	27.78	166.79	41.13	207.92	52.32	8.34	1.33	34.83	3.55	46.71	157.08	1930	1010	144
7. Assam, Manipur and Tripura	239.61	24.71	264.32	7.75	272.07	16.51	8.33	0.49	7.49	11.82	48.29	92.93	815	488	136
8. Eastern Zone	166.46	29.59	196.05	28.81	224.86	72.03	8.98	2.75	14.07	2.94	39.37	140.14	9185	5214	904
9. Andhra Pradesh	181.30	12.98	194.28	29.89	224.17	67.33	6.28	0.37	6.96	0.99	58.90	140.83	4509	2041	295
10. Madras	159.01	14.82	173.83	22.79	196.62	99.12	9.15	1.45	10.56	2.38	45.72	168.38	3256	1626	242
11. Kerala	143.03	11.21	154.24	26.33	180.57	121.26	9.49	0.49	4.06	8.36	40.77	184.43	1445	734	124
12. Suthern Zone	168.29	13.51	181.80	26.70	208.50	85.88	7.77	0.81	8.06	2.36	51.62	156.50	9210	4401	661
13. Bombay	191.99	14.87	206.86	27.93	234.79	51.92	8.31	3.26	15.22	3.07	48.41	130.21	5592	2543	412
14. Mysore	176.11	13.65	189.76	30.43	220.19	54.09	12.14	2.34	12.93	5.33	57.98	144.81	2698	1258	183
15. Western Zone	186.98	14.49	201.47	28.72	230.19	52.61	9.51	2.98	14.50	3.78	51.43	134.81	8290	3801	595
16. Rajasthan	151.59	27.52	179.11	38.11	217.22	59.17	7.40	3.12	13.84	1.71	52.54	147.78	1112	583	192
17. Punjab, Delhi and Himachal Pradesh	215.19	14.14	229.33	42.63	271.96	38.51	10.51	1.54	10.99	2.14	29.35	93.04	1673	986	192
18. Jammu and Kashmir	190.64	30.60	221.24	9.98	231.22	25.35	—	44.13	1.84	—	62.46	133.78	253	162	192
19. Northern Zone	194.39	18.59	212.98	40.94	253.92	48.36	9.43	2.35	11.85	1.98	37.11	111.08	3038	1731	576
20. all India	170.57	20.29	190.86	31.73	222.59	66.62	8.64	2.01	12.80	2.96	49.38	142.41	40909	20720	3688
21. Community Project Areas	167.38	20.44	187.82	32.95	220.77	62.88	8.86	1.82	16.37	3.13	51.17	144.23	14375	7232	1338
22. other than C.P. Areas	172.23	20.23	192.46	31.08	223.54	68.57	8.50	2.09	10.95	2.92	48.43	141.46	26534	13488	2350

TABLE (3) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

region	employed in					unemployed due to										number of	
	wage employment			self-employment		want of work	own sickness	weather condition	household work, ceremonial	leave, rest, holiday	other reasons	total persons	sample house-holds	number of sample villages			
	agricultural	non-agricultural	sub-total	total	total												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
1. Uttar Pradesh	173.80	36.95	210.75	49.56	260.31	38.50	12.56	3.30	10.86	1.68	37.79	104.69	4427	3751	624		
2. Madhya Pradesh	215.51	23.62	239.13	39.42	278.55	26.38	7.04	0.37	12.03	5.31	35.32	86.45	2088	1822	328		
3. Central Zone	189.99	31.80	221.79	45.63	267.42	33.81	10.42	2.16	11.31	3.09	36.79	97.58	6515	5573	952		
4. Bihar	189.81	30.55	220.36	25.46	245.82	67.42	10.85	3.35	5.21	2.68	29.67	119.18	2589	2190	373		
5. West Bengal	186.98	54.54	241.52	22.56	264.08	72.48	9.45	3.02	3.42	1.10	11.45	100.92	1893	1526	251		
6. Orissa	175.48	30.95	206.43	44.21	250.64	48.70	11.12	1.68	20.51	3.04	29.31	114.36	1149	1010	144		
7. Assam, Manipur and Tripura	247.88	34.11	281.99	5.30	287.29	11.79	7.25	0.78	5.99	10.83	41.07	77.71	511	488	136		
8. Eastern Zone	189.48	36.51	225.99	27.42	253.41	61.80	10.37	2.80	7.89	2.83	25.90	111.59	6142	5214	904		
9. Andhra Pradesh	211.11	18.30	229.41	34.39	263.80	55.72	6.64	0.24	4.18	0.69	33.73	101.20	2067	2041	295		
10. Madras	173.25	19.65	192.90	28.97	221.87	92.12	9.23	0.99	6.64	2.11	32.04	143.13	1633	1626	242		
11. Kerala	156.00	14.19	170.19	27.54	197.73	114.34	11.77	0.50	3.78	8.25	28.63	167.27	858	734	124		
12. Southern Zone	188.60	18.31	206.91	31.30	238.21	78.08	8.36	0.58	5.13	2.25	32.39	126.79	4558	4401	661		
13. Bombay	219.97	20.97	240.94	28.58	269.52	39.61	8.75	2.52	11.90	3.45	29.25	95.48	2714	2543	412		
14. Mysore	198.49	18.65	217.14	35.79	252.93	47.11	11.94	1.98	8.56	5.81	36.67	112.07	1286	1258	183		
15. Western Zone	213.16	20.24	233.40	30.86	264.26	41.97	9.76	2.35	10.85	4.20	31.61	100.74	4000	3801	595		
16. Rajasthan	179.52	35.24	214.76	34.35	249.11	51.23	8.68	2.72	16.00	1.15	36.11	115.89	591	583	192		
17. Punjab, Delhi and Himachal Pradesh	228.81	15.37	244.18	28.16	272.34	40.51	12.69	1.27	12.21	2.46	23.52	92.66	1245	986	192		
18. Jammu and Kashmir	187.26	32.57	219.83	10.63	230.46	24.04	—	46.97	1.96	—	61.57	134.54	238	162	192		
19. Northern Zone	216.27	20.43	236.70	29.51	266.21	42.99	11.58	2.07	13.05	2.11	26.99	98.79	2074	1731	576		
20. all India	194.26	27.44	221.70	32.89	254.59	56.26	9.79	1.98	8.56	2.93	30.89	110.41	23289	20720	3688		
21. Community Project Areas	191.63	27.97	219.60	35.94	255.54	52.85	9.92	1.45	10.89	3.03	31.32	109.46	8152	7232	1338		
22. other than C.P. Areas	195.60	27.18	222.78	31.36	254.14	57.98	9.73	2.25	7.38	2.92	30.60	110.86	15137	13488	2350		

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (4) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF CASUAL ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

MALE AGRICULTURAL LABOURERS IN C.P. AREAS																	
region	employed in				unemployed due to											number of	
	wage employment		self-employment	total	want of work	own sickness	weather condition	house-hold work, cere- monials	leave, rest, holiday	other reasons	total	sample persons	house-holds	sample villages	number of		
	agricul- tural	non- agricul- tural														sub- total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
1. Uttar Pradesh	138.61	39.38	177.99	62.55	240.54	48.25	13.41	2.77	13.12	2.02	44.89	124.46	2929	3751	624		
2. Madhya Pradesh	159.86	27.38	187.24	60.42	247.66	39.95	6.93	0.52	15.46	4.55	49.93	117.34	1215	1822	328		
3. Central Zone	146.25	35.06	181.31	61.78	243.09	45.26	11.08	1.96	13.96	2.93	46.72	121.91	4144	5573	952		
4. Bihar	185.73	31.90	217.63	27.75	245.38	69.10	10.03	3.47	5.34	1.98	29.70	119.62	1465	2190	373		
5. West Bengal	166.65	60.43	227.08	24.57	251.65	84.87	11.04	3.11	2.86	1.08	10.39	113.35	1474	1526	251		
6. Orissa	142.61	34.77	177.38	52.86	230.24	58.34	12.43	2.16	24.33	3.27	34.23	134.76	857	1010	144		
7. Assam, Manipur and Tripura	205.27	55.46	260.73	10.28	271.01	13.22	6.51	0.77	8.38	8.10	57.01	93.99	242	488	136		
8. Eastern Zone	170.39	41.86	212.25	32.22	244.47	69.29	10.79	2.96	9.27	2.23	25.99	120.53	4038	5214	904		
9. Andhra Pradesh	176.37	21.13	197.50	41.88	239.38	70.51	7.04	0.31	4.80	0.66	42.30	125.62	1561	2041	295		
10. Madras	148.28	21.87	170.15	33.14	203.29	106.56	8.88	1.12	7.00	2.23	35.92	161.71	1336	1626	242		
11. Kerala	151.34	13.94	165.28	29.41	194.69	116.09	12.43	0.57	4.12	8.01	29.09	170.31	775	734	124		
12. Southern Zone	161.44	20.41	181.85	36.57	218.42	91.59	8.55	0.67	5.59	2.34	37.84	146.58	3672	4401	661		
13. Bombay	193.50	23.65	217.15	34.95	252.10	47.69	9.23	2.90	13.57	3.88	35.63	112.90	2146	2543	412		
14. Mysore	191.63	16.51	208.14	39.02	247.16	51.82	12.33	2.28	9.57	4.84	37.00	117.84	1116	1258	183		
15. Western Zone	192.86	21.22	214.08	36.33	250.41	49.09	10.29	2.69	12.21	4.21	36.10	114.59	3262	3801	595		
16. Rajasthan	158.79	32.75	191.54	35.63	227.17	64.16	5.24	2.95	19.86	1.34	44.28	137.83	456	583	192		
17. Punjab, Delhi and Himachal Pradesh	145.22	26.49	171.71	43.73	215.44	71.90	18.79	2.21	15.76	2.36	38.54	149.56	653	986	192		
18. Jammu and Kashmir	109.97	—	109.97	24.65	134.62	2.21	—	212.36	—	—	15.81	230.38	35	162	192		
19. Northern Zone	149.59	28.47	178.06	40.97	219.03	69.08	14.22	3.23	17.06	2.01	40.37	145.97	1144	1731	576		
20. all India	166.95	29.89	196.84	39.94	236.78	67.78	10.17	2.05	9.80	2.76	35.66	128.22	16260	20720	3688		
21. Community Project Areas	163.20	30.01	193.21	43.11	236.32	64.65	9.94	1.64	12.87	3.41	36.17	128.68	5596	7232	1338		
22. other than C.P. Areas	168.84	29.83	198.67	38.34	237.01	69.37	10.29	2.25	8.25	2.47	35.36	127.99	10664	13488	2350		

TABLE (5) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ATTACHED ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

region	employed in				unemployed due to											number of sample persons	number of sample households	number of sample villages
	wage employment		self-employment	total	want of work	own sickness	weather condition	household work, cere- monials	leave, rest, holiday	other reasons	total							
	agricul- tural	non- agricul- tural										sub- total						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)			
1. Uttar Pradesh	237.01	32.64	269.65	26.26	295.91	21.02	11.04	4.24	6.80	1.07	24.92	69.09	1498	3751	624			
2. Madhya Pradesh	289.28	18.65	307.93	11.59	319.52	8.41	7.18	0.18	7.49	6.32	15.90	45.48	873	1822	328			
3. Central Zone	259.63	26.59	286.22	19.92	306.14	15.57	9.38	2.48	7.09	3.34	21.00	58.86	2371	5573	952			
4. Bihar	194.74	28.90	223.64	22.67	246.31	65.39	11.84	3.20	5.04	3.54	29.68	118.69	1124	2190	373			
5. West Bengal	275.35	28.93	304.28	13.83	318.11	18.62	2.52	2.62	5.85	1.19	16.09	46.89	419	1526	251			
6. Orissa	290.60	17.58	308.18	13.96	322.14	15.02	6.51	—	7.14	2.23	11.96	42.86	292	1010	144			
7. Assam, Manipur and Tripura	276.46	19.79	296.25	1.97	298.22	10.84	7.74	0.79	4.39	12.66	30.36	66.78	269	488	136			
8. Eastern Zone	224.81	26.61	251.42	18.50	269.92	47.96	9.60	2.49	5.35	3.94	25.74	95.08	2104	5214	904			
9. Andhra Pradesh	337.63	7.97	345.60	7.12	352.72	1.82	5.20	—	1.94	0.81	2.51	12.28	506	2041	295			
10. Madras	274.59	10.65	285.24	12.08	297.32	33.57	10.63	0.46	5.20	1.62	16.20	67.68	297	1626	242			
11. Kerala	190.80	16.06	206.86	13.49	220.35	101.20	6.80	—	1.24	10.09	25.32	144.65	83	734	124			
12. Southern Zone	300.29	9.70	309.99	9.66	319.65	22.62	7.55	0.19	3.22	1.87	9.90	45.35	886	4401	661			
13. Bombay	307.13	12.17	319.30	7.61	326.91	12.97	7.15	1.26	6.39	2.05	8.27	38.09	568	2543	412			
14. Mysore	238.36	31.10	269.46	17.01	286.47	19.64	9.61	0.28	2.76	11.45	34.79	78.53	170	1258	183			
15. Western Zone	291.58	16.45	308.03	9.73	317.76	14.49	7.71	1.04	5.57	4.17	14.26	47.24	738	3801	595			
16. Rajasthan	252.30	43.99	296.29	29.85	326.14	5.85	20.76	1.90	2.45	0.47	7.43	38.86	135	583	192			
17. Punjab, Delhi and Himachal Pradesh	317.96	3.51	321.47	11.56	333.03	7.03	6.20	0.27	8.44	2.56	7.47	31.97	592	986	192			
18. Jammu and Kashmir	209.20	41.82	251.02	6.64	257.66	30.25	—	—	2.51	—	74.58	107.34	203	162	192			
19. Northern Zone	307.53	9.43	316.96	13.84	330.80	7.29	7.98	0.47	7.55	2.25	8.66	34.20	930	1731	576			
20. all India	259.38	21.62	281.00	16.09	297.09	28.77	8.88	1.82	5.59	3.36	19.49	67.91	7029	20720	3688			
21. Community Project Areas	259.55	23.09	282.64	18.81	301.45	24.68	9.86	0.99	6.17	2.13	19.72	63.55	2556	7232	1338			
22. other than C.P. Areas	259.34	20.87	280.21	14.72	294.93	30.84	8.39	2.23	5.30	3.97	19.34	70.07	4473	13488	2350			

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (6) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ADULT FEMALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

region	employed in					unemployed due to										number of	
	wage employment			self-employment		want of work	own sickness	weather condition	household work, cere- monials	leave, rest, holiday	other reasons	total	sample persons	house-holds	sample villages	number of	
	agricul- tural	non- agricul- tural	sub- total	total	total												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
1. Uttar Pradesh	96.36	7.81	104.17	41.31	145.48	70.90	7.42	0.96	26.97	3.18	110.09	219.52	2023	3751	624		
2. Madhya Pradesh	132.02	12.98	145.00	33.17	178.17	68.66	6.00	1.70	24.66	4.09	81.72	186.83	1736	1822	328		
3. Central Zone	115.00	10.51	125.51	37.07	162.58	69.74	6.68	1.34	25.77	3.66	95.23	202.42	3759	5573	952		
4. Bihar	114.93	8.85	123.78	27.38	151.16	123.15	7.70	2.97	15.68	1.63	62.71	213.84	1368	2190	373		
5. West Bengal	137.69	30.11	167.80	28.41	196.21	90.13	3.13	0.63	30.67	3.39	40.84	168.79	279	1526	251		
6. Orissa	70.20	21.14	91.34	34.84	126.18	64.25	5.58	1.05	62.64	2.85	102.45	238.82	625	1010	144		
7. Assam, Manipur and Tripura	219.12	10.51	229.63	12.06	241.69	26.20	11.30	—	11.42	12.71	61.68	123.31	246	488	136		
8. Eastern Zone	111.19	14.34	125.53	28.58	154.11	97.93	6.91	2.04	29.72	2.81	71.48	210.89	2518	5214	904		
9. Andhra Pradesh	140.43	8.46	148.89	25.27	174.16	84.97	7.05	0.51	9.59	1.23	87.49	190.84	1945	2041	295		
10. Madras	135.23	7.23	142.46	12.49	154.95	114.74	9.65	2.26	15.80	2.91	64.69	210.05	1409	1626	242		
11. Kerala	122.80	7.38	130.18	25.41	155.59	132.37	5.66	0.50	4.25	8.81	57.82	209.41	562	734	124		
12. Southern Zone	136.53	7.86	144.39	20.26	164.65	101.70	7.93	1.20	11.47	2.69	75.36	200.35	3916	4401	661		
13. Bombay	160.25	8.42	168.67	25.49	194.16	66.53	8.44	3.88	20.19	2.99	68.81	170.84	2371	2543	412		
14. Mysore	147.91	9.04	156.95	24.57	181.52	62.81	13.91	2.43	18.56	4.83	80.94	183.48	1190	1288	183		
15. Western Zone	156.31	8.62	164.93	25.20	190.13	65.35	10.18	3.42	19.67	3.57	72.68	174.87	3561	3801	595		
16. Rajasthan	117.16	21.83	138.99	33.76	172.75	91.55	7.11	3.26	12.52	2.44	75.37	192.25	433	583	192		
17. Punjab, Delhi and Himachal Pradesh	144.66	13.22	157.88	90.59	248.47	31.61	4.42	0.56	11.56	1.38	67.00	116.53	283	986	192		
18. Jammu and Kashmir	136.87	—	136.87	—	136.87	—	—	—	—	—	228.13	228.13	3	162	192		
19. Northern Zone	129.53	18.01	147.36	58.88	206.24	64.98	5.92	2.07	12.09	1.97	71.73	158.76	719	1731	576		
20. all India	131.05	10.15	141.20	27.31	168.51	85.46	7.92	1.93	20.14	3.10	77.94	196.49	14473	20720	3688		
21. Community Project Areas	127.71	10.28	137.99	26.18	164.17	81.64	8.61	1.79	25.43	3.28	80.08	200.83	5095	7232	1338		
22. other than C.P. Areas	132.89	10.08	142.97	27.93	170.90	87.59	7.55	2.00	17.29	3.00	76.67	194.10	9378	13488	2350		

TABLE (7) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF CHILD AGRI-
CULTURAL LABOURERS BY CATEGORY OF WORK

region	employed in					unemployed due to					number of				
	wage employment			self-employment	want of work	own sickness	weather conditions	household work, cere- monials	leave, rest, holiday	other reasons	total	sample persons	house-holds	sample villages	number of
	agricul- tural	non- agricul- tural	sub- total												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1. Uttar Pradesh	144.85	19.83	164.68	82.12	246.80	47.36	4.28	1.84	11.50	1.47	51.75	118.20	513	3751	624
2. Madhya Pradesh	176.80	20.35	197.15	45.41	242.56	50.28	2.74	0.52	7.52	2.45	58.93	122.44	399	1822	328
3. Central Zone	159.86	20.07	179.93	64.87	244.80	48.73	3.56	1.22	9.63	1.93	55.13	120.20	912	5573	925
4. Bihar	162.44	15.75	178.19	55.55	233.74	93.10	4.18	11.44	2.01	0.93	19.60	131.26	237	2190	373
5. West Bengal	212.93	69.15	282.08	23.98	306.06	33.44	6.99	—	18.82	10.24	18.51	58.94	74	1526	251
6. Orissa	170.81	33.45	204.26	45.90	250.16	26.95	—	—	—	—	58.83	114.84	156	1010	144
7. Assam, Manipur and Tripura	253.47	1.49	254.96	11.07	266.03	17.08	5.33	—	3.97	16.88	55.71	98.97	58	488	136
8. Eastern Zone	177.02	26.11	203.13	45.93	249.06	60.48	3.26	5.80	7.19	4.88	34.33	115.94	525	5214	904
9. Andhra Pradesh	214.11	7.61	221.72	28.49	250.21	47.57	1.52	0.40	8.67	1.37	55.26	114.79	497	2041	295
10. Madras	199.30	25.46	224.76	40.13	264.89	54.38	5.45	—	7.78	1.08	31.42	100.11	214	1626	242
11. Kerala	173.54	—	173.54	7.29	180.83	98.10	21.17	—	9.05	1.99	53.86	184.17	25	734	124
12. Southern Zone	208.28	13.24	221.52	31.78	253.30	51.04	3.29	0.26	8.39	1.29	47.43	111.70	736	4401	661
13. Bombay	192.69	12.88	205.57	35.73	241.30	48.69	5.44	4.42	9.73	1.51	53.91	123.70	507	2543	412
14. Mysore	192.82	8.61	201.43	29.76	231.19	49.27	4.11	3.87	8.98	5.16	62.42	133.81	222	1258	183
15. Western Zone	192.72	11.65	204.37	33.99	238.36	48.85	5.05	4.26	9.51	2.57	56.40	126.64	729	3801	595
16. Rajasthan	152.32	5.86	158.18	89.45	247.63	67.05	—	5.20	6.15	1.43	37.54	117.37	88	583	192
17. Punjab, Delhi and Himachal Pradesh	227.35	5.67	233.02	76.79	309.81	34.28	3.39	5.45	—	0.82	11.25	55.19	145	986	192
18. Jammu and Kashmir	296.56	—	296.56	—	296.56	68.44	—	—	—	—	—	68.44	12	162	192
19. Northern Zone	206.80	5.70	212.50	80.05	292.55	43.48	2.40	5.36	1.70	0.98	18.53	72.45	245	1731	576
20. all India	187.20	17.07	204.27	44.31	248.58	51.71	3.72	2.69	8.47	2.46	47.37	116.42	3147	20720	3688
21. Community Project Areas	188.67	17.38	206.05	44.62	250.67	42.71	2.89	4.65	10.76	2.43	50.89	114.33	1128	7232	1338
22. other than C.P. Areas	186.38	16.97	203.35	44.14	247.49	56.61	4.17	1.63	7.22	2.47	45.41	117.51	2019	13488	2350

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (8) : AVERAGE DAILY WAGE (ANNAS) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS BY TYPE OF OPERATION

region	agricultural operations						non-agricultural operations	all operations	number of sample persons	number of sample house-holds	number of sample villages	
	ploughing	sowing	trans-planting	weeding	harvesting	others						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Uttar Pradesh	15.04	13.44	16.96	12.16	15.52	14.40	14.72	15.84	15.04	2929	3751	624
2. Madhya Pradesh	12.80	13.76	10.88	9.28	14.24	12.00	12.16	14.40	12.48	1215	1822	328
3. Central Zone	14.24	13.44	16.64	11.04	15.04	13.12	13.76	15.36	14.08	4144	5573	952
4. Bihar	15.04	19.36	16.16	14.24	14.72	13.44	14.56	18.40	15.04	1465	2190	373
5. West Bengal	22.88	24.00	25.60	22.56	21.60	22.24	22.88	20.32	22.08	1474	1526	251
6. Orissa	10.08	17.44	13.92	12.64	12.96	13.12	12.80	14.40	13.12	857	1010	144
7. Assam, Manipur and Tripura	26.88	32.00	25.12	23.04	23.36	23.84	24.64	26.88	25.12	242	488	136
8. Eastern Zone	16.64	22.72	19.68	17.60	16.48	16.00	16.96	18.56	17.28	4038	5214	904
9. Andhra Pradesh	14.40	13.44	14.56	13.12	12.96	14.56	13.92	15.52	14.08	1561	2041	295
10. Madras	14.56	21.28	14.72	9.76	12.96	13.12	13.44	14.56	13.60	1336	1626	242
11. Kerala	20.80	24.00	12.48	—	21.12	20.48	20.48	21.76	20.64	775	734	124
12. Southern Zone	15.52	16.96	14.56	11.84	13.28	15.36	14.56	15.68	14.72	3672	4401	661
13. Bombay	15.52	14.08	17.92	12.64	13.92	13.92	13.92	15.84	14.08	2146	2543	412
14. Mysore	14.08	14.72	17.28	10.56	12.32	24.24	13.44	17.92	13.76	1116	1258	183
15. Western Zone	15.04	14.24	17.76	12.16	13.44	14.08	13.76	16.48	14.08	3262	3801	595
16. Rajasthan	17.28	17.60	16.00	13.28	17.60	15.36	15.68	20.00	16.32	456	583	192
17. Punjab, Delhi and Himachal Pradesh	33.28	26.72	21.44	27.68	39.52	30.24	31.68	22.08	30.24	653	986	192
18. Jammu and Kashmir	—	—	—	—	10.40	20.48	17.44	—	17.44	35	162	192
19. Northern Zone	29.12	20.64	21.28	21.44	32.32	24.96	26.08	21.28	25.28	1144	1731	576
20. all India	16.00	18.40	17.76	14.08	14.88	15.20	15.36	17.12	15.52	16260	20720	3688
21. Community Project Areas	16.32	16.32	20.16	13.28	16.00	15.36	15.68	17.28	16.00	5596	7232	1338
22. other than C.P. Areas	15.84	19.20	16.32	14.40	14.40	15.20	15.20	16.96	15.36	10664	13488	2350

TABLE (9) : AVERAGE DAILY WAGE (ANNAS) OF CASUAL ADULT FEMALE AGRICULTURAL LABOURERS BY TYPE OF OPERATION

region	agricultural operations						non-agricultural operations	all operations	number of sample persons	all operations	number of sample persons	number of sample villages
	ploughing	sowing	trans-planting	weeding	harvesting	others						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Uttar Pradesh	9.28	8.16	11.84	8.48	10.72	10.72	10.40	9.44	10.24	1721	3751	624
2. Madhya Pradesh	8.64	12.32	10.88	8.80	9.92	8.80	9.44	9.12	9.44	1544	1822	328
3. Central Zone	8.80	10.08	11.52	8.64	10.24	9.28	9.76	9.28	9.76	3265	5573	952
4. Bihar	15.52	13.92	13.60	9.76	11.68	10.72	11.84	11.52	11.84	906	2190	373
5. West Bengal	10.72	18.40	18.56	18.24	10.88	16.16	15.68	14.40	15.36	224	1526	251
6. Orissa	7.84	9.92	8.96	9.28	9.28	8.16	8.80	9.12	8.96	590	1010	144
7. Assam, Manipur and Tripura	31.84	17.12	24.64	17.12	15.84	16.32	18.40	16.16	17.76	103	488	136
8. Eastern Zone	12.96	16.16	13.60	10.24	11.20	10.56	11.84	11.36	11.84	1823	5214	904
9. Andhra Pradesh	7.36	12.96	10.24	8.00	8.96	7.68	8.80	10.72	8.96	1855	2041	295
10. Madras	8.96	9.76	8.48	7.20	7.84	7.04	7.68	7.68	7.68	1329	1626	242
11. Kerala	16.00	17.28	9.44	9.12	11.52	12.32	11.20	9.28	11.04	477	734	124
12. Southern Zone	8.00	11.84	9.44	7.68	8.64	8.48	8.64	9.44	8.64	3661	4401	661
13. Bombay	7.20	8.96	15.36	8.16	8.64	8.80	8.80	9.60	8.80	2273	2543	412
14. Mysore	7.20	10.56	13.92	7.52	8.48	9.76	8.80	9.44	8.96	1107	1258	183
15. Western Zone	7.20	9.92	14.88	8.00	8.48	9.12	8.80	9.60	8.80	3380	3801	595
16. Rajasthan	4.32	6.08	5.60	10.40	10.72	8.64	9.76	9.60	9.60	406	583	192
17. Punjab, Delhi and Himachal Pradesh	—	—	16.00	31.04	22.40	14.88	19.52	6.40	17.44	220	986	192
18. Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	162	192
19. Northern Zone	4.32	6.08	10.88	10.72	16.80	10.88	12.64	8.32	12.26	626	1731	576
20. all India	9.44	13.12	11.04	8.32	9.28	9.28	9.44	9.92	9.44	12755	20720	3688
21. Community Project Areas	9.44	13.44	12.16	8.16	10.08	8.96	9.76	9.92	9.76	4536	7232	1338
22. other than C.P. Areas	9.44	13.12	10.40	8.32	8.80	9.44	9.12	10.08	9.28	8219	13488	2350

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (10) : PERCENTAGE DISTRIBUTION OF MANDAYS¹ WORKED BY CASUAL ADULT AGRICULTURAL LABOURERS BY MODE OF WAGE PAYMENT

region	mode of wage payment			number of sample persons	number of sample households	number of sample villages
	cash	kind	cash and kind			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Uttar Pradesh	41.93	52.45	5.62	4650	3751	624
2. Madhya Pradesh	31.66	62.31	6.03	2759	1822	328
3. Central Zone	37.17	57.02	5.81	7409	5573	952
4. Bihar	27.21	65.29	7.50	2371	2190	373
5. West Bengal	51.15	12.45	36.40	1698	1526	251
6. Orissa	35.73	57.01	7.26	1447	1010	144
7. Assam, Manipur and Tripura	69.30	13.66	17.04	345	488	136
8. Eastern Zone	37.54	46.42	16.04	5861	5214	904
9. Andhra Pradesh	54.52	38.50	6.98	3416	2041	295
10. Madras	57.21	35.97	6.82	2665	1626	242
11. Kerala	48.48	27.97	24.45	1252	734	124
12. Southern Zone	54.90	30.42	8.68	7333	4401	661
13. Bombay	63.01	25.72	11.27	4419	2543	412
14. Mysore	54.52	34.69	10.79	2223	1258	183
15. Western Zone	60.33	28.55	11.12	6642	3801	595
16. Rajasthan	61.07	27.67	11.26	862	583	192
17. Punjab, Delhi and Himachal Pradesh	53.25	36.70	10.05	873	986	192
18. Jammu and Kashmir	34.77	38.22	27.01	35	162	192
19. Northern Zone	56.63	32.77	10.60	1770	1731	576
20. all India	48.73	40.52	10.75	29015	20720	3688
21. Community Project Areas	47.76	41.40	10.84	10132	7232	1338
22. other than C.P. Areas	49.21	40.09	10.70	18883	13488	2350

¹ In calculating the percentages, the working day of an adult female labourer has been taken at par with that of an adult male labourer.

TABLE (11) : PERCENTAGE DISTRIBUTION OF MANDAYS WORKED BY CASUAL ADULT MALE AGRICULTURAL LABOURERS IN AGRICULTURAL OPERATIONS BY WAGE RANGE AND AVERAGE DAILY WAGE (ANNAS)

region	wage range (annas)							average coeff. of daily wage variation (annas)	number of sample persons above	34 and above	not recorded	(10)	(11)	(12)	(13)	number of sample households	number of sample villages
	less than 10	10-14	14-18	18-22	22-26	26-30	30-34										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)			
1. Uttar Pradesh	25.32	18.54	34.06	8.92	9.76	0.79	1.78	0.67	0.16	14.72	42.72	2929	3751	624			
2. Madhya Pradesh	37.31	27.54	22.12	3.93	2.46	0.97	0.93	0.68	4.06	12.16	44.60	1215	1822	328			
3. Central Zone	30.02	22.07	29.38	6.97	6.90	0.86	1.45	0.67	1.68	13.76	45.06	4144	5573	952			
4. Bihar	26.45	14.22	41.53	8.77	5.30	0.61	1.87	1.23	0.02	14.56	43.86	1465	2190	373			
5. West Bengal	0.39	5.37	12.77	20.03	36.76	15.83	7.16	1.69	—	22.88	23.31	1474	1526	251			
6. Orissa	24.07	39.30	29.49	5.00	1.19	0.65	0.02	0.28	—	12.80	32.27	857	1010	144			
7. Assam, Manipur and Tripura	0.62	3.29	13.82	13.05	35.89	5.35	23.15	4.83	—	24.64	25.60	242	488	136			
8. Eastern Zone	17.34	16.31	29.59	11.44	14.85	5.22	3.92	1.32	0.01	16.96	41.59	4038	5214	904			
9. Andhra Pradesh	22.27	23.01	40.25	9.58	2.56	0.15	1.96	0.11	0.11	13.92	37.19	1561	2041	295			
10. Madras	25.29	28.43	34.83	4.81	4.91	0.70	0.31	0.72	—	13.44	40.74	1336	1626	242			
11. Kerala	3.42	8.46	20.11	22.31	34.81	4.47	5.67	0.75	—	20.48	28.69	775	734	124			
12. Southern Zone	20.90	23.10	35.58	9.49	7.70	0.93	1.83	0.42	0.05	14.56	40.17	3672	4401	661			
13. Bombay	21.88	31.00	28.41	8.78	6.72	1.11	0.76	0.32	1.02	13.92	45.32	2146	2543	412			
14. Mysore	24.82	31.06	30.69	6.09	5.14	0.53	1.02	—	0.65	13.44	36.89	1116	1258	183			
15. Western Zone	22.88	31.02	29.18	7.87	6.18	0.91	0.85	0.21	0.90	13.76	37.65	3262	3801	595			
16. Rajasthan	22.49	17.33	41.69	5.08	4.08	1.28	2.17	2.77	3.11	15.68	63.40	456	583	192			
17. Punjab, Delhi and Himachal Pradesh	8.03	4.04	9.21	5.92	13.39	7.00	21.69	29.52	1.20	31.68	47.95	653	986	192			
18. Jammu and Kashmir	18.10	6.03	27.01	17.82	31.04	—	—	—	—	17.44	34.37	35	162	192			
19. Northern Zone	13.16	8.73	20.70	5.66	10.16	4.96	14.75	20.01	1.87	26.08	59.74	1144	1731	576			
20. all India	21.49	22.23	30.98	9.23	9.49	2.33	2.53	1.19	0.53	15.36	45.18	16260	20720	3688			
21. Community Project Areas	18.83	24.50	30.06	9.13	9.40	2.23	3.49	1.62	0.74	15.68	46.71	5596	7232	1338			
22. other than C.P. Areas	22.84	21.09	31.44	9.28	9.53	2.38	2.04	0.98	0.42	15.20	44.37	10664	13488	2350			

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (12) : PERCENTAGE DISTRIBUTION OF MANDAYS WORKED BY CASUAL ADULT FEMALE AGRICULTURAL LABOURERS IN AGRICULTURAL OPERATIONS BY WAGE RANGE AND AVERAGE DAILY WAGE (ANNAS)

region	wage range (annas)							34 and not above recorded	average coeffi- cient of daily wage varia- (annas)			number of sample house- holds	number of sample villages	
	less than 10	10-14	14-18	18-22	22-26	26-30	30-34		(11)	(12)	(13)			(14)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Uttar Pradesh	55.87	29.16	7.44	5.44	0.85	—	0.41	0.07	0.76	10.40	38.19	1721	3751	624
2. Madhya Pradesh	64.74	22.88	9.20	0.88	0.70	0.08	0.47	0.19	0.86	9.44	42.43	1544	1822	328
3. Central Zone	61.36	25.28	8.53	2.62	0.75	0.05	0.44	0.15	0.82	9.76	41.08	3265	5573	952
4. Bihar	36.61	32.61	25.68	4.17	0.87	—	0.06	—	—	11.84	33.47	906	2190	373
5. West Bengal	20.72	9.40	41.71	11.62	15.11	1.44	—	—	—	15.68	33.12	224	1526	251
6. Orissa	69.42	27.24	1.40	1.24	0.70	—	—	—	—	8.80	31.54	590	1010	144
7. Assam, Manipur and Tripura	2.84	0.72	70.92	7.02	4.20	1.54	8.93	0.87	2.96	18.40	30.83	103	488	136
8. Eastern Zone	40.96	27.23	23.68	4.59	2.85	0.24	0.32	0.03	0.10	11.84	39.24	1823	5214	904
9. Andhra Pradesh	61.04	26.44	10.06	1.57	0.36	0.05	0.021	0.09	0.39	8.80	44.56	1855	2041	295
10. Madras	78.29	17.28	3.79	0.31	0.17	0.08	—	—	0.08	7.68	32.77	1329	1626	242
11. Kerala	48.03	18.04	24.93	7.73	0.89	—	—	0.38	—	11.20	42.39	477	734	124
12. Southern Zone	66.55	22.32	8.85	1.57	0.33	0.06	0.037	0.08	0.24	8.64	42.30	3661	4401	661
13. Bombay	71.72	13.41	8.76	2.23	2.23	0.44	0.14	0.04	1.03	8.80	51.36	2273	2543	412
14. Mysore	70.61	17.00	9.37	2.63	0.10	—	0.18	0.03	0.08	8.80	41.12	1107	1258	183
15. Western Zone	71.29	14.45	8.93	2.35	1.60	0.31	0.15	0.03	0.89	8.80	48.19	3380	3801	595
16. Rajasthan	62.95	18.29	16.76	0.93	0.27	—	—	0.42	0.38	9.76	53.51	406	583	192
17. Punjab, Delhi and Himachal Pradesh	17.75	30.17	15.47	6.13	10.68	1.49	1.58	13.47	3.26	19.52	79.42	220	986	192
18. Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	162	192
19. Northern Zone	48.71	22.02	16.36	2.57	3.55	0.47	0.50	4.53	1.29	12.64	75.85	626	1731	576
20. all India	63.08	21.17	11.10	2.43	1.20	0.17	0.18	0.14	0.53	9.44	46.13	12755	20720	3688
21. Community Project Areas	58.26	24.81	11.23	2.52	1.90	0.34	0.28	0.10	0.56	9.76	45.84	4536	7232	1338
22. other than C.P. Areas	65.73	19.18	11.03	2.39	0.81	0.07	0.12	0.16	0.51	9.12	47.72	8219	13488	2350

TABLE (13.0) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

All India																
average number of days per agricultural labourer employed on wages during the year 1956-57																
category of household	percent- age of house- holds	average number of agricultural labourers per household				agricultural operations						non-agri. operations		total		number of house- holds
		men	women	children	total	men	women	children	total	men	women	children	total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(1) with land	29.86	4.88	1.21	0.73	0.15	2.09	152.50	105.08	141.12	27.93	9.07	17.21	180.43	114.15	158.33	6018
(2) without land	43.62	3.91	1.00	0.75	0.13	1.88	188.05	144.69	196.16	30.74	11.96	18.88	218.79	156.65	215.04	9137
(3) all casual	73.48	4.30	1.09	0.75	0.14	1.98	171.77	128.52	172.36	29.46	10.79	18.15	201.23	139.31	190.51	15155
2. attached :																
(1) with land	11.78	5.13	1.33	0.72	0.19	2.24	219.46	115.45	183.11	27.93	7.07	17.53	247.39	122.52	200.64	2371
(2) without land	14.74	4.31	1.19	0.71	0.20	2.10	274.24	157.12	242.02	17.95	9.16	13.26	292.19	166.23	255.28	3194
(3) all attached	26.52	4.67	1.25	0.71	0.20	2.16	248.88	138.46	217.24	22.67	8.22	15.05	271.05	146.68	232.29	5565
3. all households	100.00	4.40	1.13	0.74	0.16	2.03	194.26	131.05	187.20	27.44	10.15	17.07	221.70	141.20	204.27	20720

number of sample villages : 3688

TABLE (13.01) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Community Project Areas : All India																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(.1) with land	29.02	4.89	1.23	0.81	0.16	2.20	145.39	98.99	147.00	28.59	8.80	19.76	173.98	107.79	166.76	1994
(.2) without land	44.54	3.94	1.00	0.79	0.13	0.92	185.62	146.01	193.76	31.68	11.63	16.75	217.30	157.64	210.51	3235
(.3) all casual	73.56	4.32	1.09	0.80	0.14	2.03	167.76	127.08	173.13	30.31	10.49	18.05	198.07	137.57	191.21	5229
2. attached :																
(.1) with land	11.18	5.15	1.30	0.74	0.24	2.28	225.22	107.20	169.99	28.09	4.53	21.05	253.31	111.73	191.04	814
(.2) without land	15.26	4.30	1.16	0.71	0.21	2.08	272.02	147.50	254.22	17.30	13.88	12.16	289.32	161.38	266.38	1189
(.3) all attached	26.44	4.66	1.22	0.72	0.22	2.16	250.92	130.04	216.29	22.16	9.82	16.16	273.08	139.86	232.45	2003
3. all households	100.00	4.41	1.12	0.78	0.16	2.06	191.63	127.71	188.67	27.97	10.28	17.38	219.60	137.99	206.05	7232
number of sample villages : 1338																

number of sample villages : 1338

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (13.02): EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Other than Community Project Areas : All India																	
category of household	percent- average age of size of house- holds	average number of agricultural labourers per household					average number of days per agricultural labourer employed on wages during the year 1956-57										number of sample house- holds
		men			women		agricultural operations			non-agri. operations			total				
		children	total		children	total	men	women	children	men	women	children	men	women	children		
		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)		
1. <i>casual</i> :																	
(1) with land	30.28	4.87	1.22	0.73	0.15	2.10	155.97	108.37	138.07	27.62	9.22	15.88	183.59	177.59	153.95	4024	
(2) without land	43.15	3.90	0.99	0.73	0.14	1.86	189.35	143.94	197.36	30.24	12.14	19.96	219.59	156.08	217.32	5902	
(3) all casual	73.43	4.30	1.08	0.73	0.14	1.95	173.83	129.32	171.62	29.02	10.94	18.19	202.85	140.26	189.81	9926	
2. <i>attached</i> :																	
(1) with land	12.08	5.12	1.34	0.71	0.16	2.21	216.84	119.48	192.08	27.70	8.60	15.12	244.54	128.08	207.20	1557	
(2) without land	14.49	4.31	1.20	0.71	0.20	2.11	275.34	162.34	235.22	18.29	6.65	13.89	293.63	168.99	249.11	2005	
(3) all attached	26.57	4.68	1.27	0.71	0.18	2.16	247.12	142.83	217.83	22.83	7.54	14.39	269.95	150.37	232.22	3562	
3. all households	100.00	4.40	1.13	0.73	0.15	2.01	195.60	132.89	186.38	27.18	10.08	16.97	222.78	142.97	203.35	13488	
number of sample villages : 2350																	

TABLE (13.1): EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Central Zone																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. <i>casual</i> :																
(1) with land	28.13	4.78	1.23	0.76	0.19	2.18	124.70	79.40	125.26	33.68	9.25	17.73	158.38	88.65	142.99	1602
(2) without land	35.18	3.75	1.02	0.67	0.13	1.82	177.66	129.36	145.09	36.09	11.73	29.65	212.75	141.09	168.74	2043
(3) all casual	63.31	4.21	1.11	0.71	0.16	1.98	151.63	105.60	134.47	34.40	10.55	20.48	186.03	116.15	154.95	3645
2. <i>attached</i> :																
(1) with land	20.05	5.13	1.32	0.88	0.24	2.44	216.66	102.22	161.22	36.47	11.80	19.91	253.13	114.02	181.13	1059
(2) without land	16.64	4.03	1.21	0.74	0.18	2.13	289.38	167.39	241.65	16.48	8.52	19.00	305.86	175.91	260.65	869
(3) all attached	36.69	4.63	1.27	0.82	0.21	2.30	247.99	129.03	192.53	27.86	10.46	19.55	275.85	139.49	212.08	1928
3. all households	100.00	4.37	1.17	0.75	0.18	2.10	189.99	115.00	159.86	31.80	10.51	20.07	221.79	125.51	179.93	5573
number of sample villages : 952																

TABLE (13.11) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Uttar Pradesh																	
category of household	percent- age of house- holds	average number of agricultural labourers per household					average number of days per agricultural labourer employed on wages during the year 1956-57										number of sample house-holds
		men			women		agricultural operations			non-agri. operations			total				
		children		total	children		men	women	children	men	women	children	men	women	children		
		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)		
1. casual :																	
(1) with land	29.89	4.85	1.23	0.59	0.18	2.00	120.31	69.89	112.78	35.82	6.44	10.98	156.13	76.33	123.76	1179	
(2) without land	34.40	3.90	1.06	0.45	0.10	1.61	163.50	109.64	156.27	42.11	11.22	30.21	205.61	120.86	186.48	1325	
(3) all casual	64.29	4.34	1.14	0.51	0.14	1.79	141.74	88.53	130.05	38.91	8.68	18.62	180.65	97.21	148.67	2504	
2. attached :																	
(1) with land	24.44	5.23	1.33	0.86	0.20	2.39	205.32	90.13	139.13	39.45	8.05	24.92	244.77	98.18	164.05	842	
(2) without land	11.27	4.13	1.22	0.48	0.16	1.86	271.31	168.18	232.54	20.67	1.57	11.80	291.98	169.75	244.34	405	
(3) all attached	35.71	4.88	1.29	0.74	0.19	2.22	224.97	106.11	164.07	33.87	6.73	21.42	258.84	112.84	185.49	1247	
3. all households	100.00	4.54	1.19	0.60	0.16	1.95	173.80	96.36	144.85	36.95	7.81	19.83	210.75	104.17	164.68	3751	

number of sample villages : 624

TABLE (13.12) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Madhya Pradesh																	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
1. casual :																	
(.1) with land	25.48	4.67	1.23	1.06	0.21	2.50	132.52	88.66	143.95	29.87	11.99	27.84	162.39	100.65	171.79	423	
(.2) without land	36.36	3.54	0.96	0.99	0.17	2.12	199.86	142.26	135.74	24.19	12.05	18.18	224.05	154.31	153.92	718	
(.3) all casual	61.84	4.01	1.07	1.02	0.19	2.28	168.11	119.12	139.51	26.86	12.02	22.61	194.97	131.14	162.12	1141	
2. attached :																	
(.1) with land	13.43	4.87	1.34	0.93	0.32	2.59	247.55	132.88	199.28	28.33	21.31	11.26	275.88	154.19	210.54	217	
(.2) without land	24.73	3.96	1.21	0.92	0.19	2.32	301.90	167.09	246.83	13.57	11.02	23.07	315.47	178.11	269.90	464	
(.3) all attached	38.16	4.28	1.24	0.93	0.24	2.41	281.49	154.95	224.26	19.11	14.67	17.47	300.60	169.62	241.73	681	
3. all households	100.00	4.11	1.14	0.98	0.21	2.33	251.51	132.02	176.80	23.62	12.98	20.35	239.13	145.00	197.15	1822	
																number of sample villages :	328

number of sample villages : 328

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (13.2) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Eastern Zone																			
category of household	percent- average age of house- holds	average number of agricultural labourers per household					average number of days per agricultural labourer employed on wages during the year 1956-57										number of sample house- holds		
		men			women children		total			agricultural operations			non-agri. operations					total	
		men		women	children	total	men	women	children	men	women	children	men	women	children	men		women	
		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)				
1. casual																			
(1) with land	32.80	5.00	1.28	0.53	0.10	1.91	163.49	89.16	137.74	33.29	14.10	30.43	196.78	103.26	168.17	1662			
(2) without land	33.14	4.10	1.03	0.46	0.08	1.57	187.64	124.26	223.60	50.45	24.08	32.94	238.09	148.34	256.54	1860			
(3) all casual	65.94	4.54	1.16	0.49	0.09	1.74	174.33	105.65	175.36	40.99	18.78	31.53	215.32	124.43	206.89	3522			
2. attached :																			
(1) with land	18.62	5.21	1.33	0.55	0.13	2.01	208.45	117.29	170.81	25.45	2.89	21.70	233.90	120.18	192.51	853			
(2) without land	15.44	4.33	1.12	0.55	0.13	1.80	229.40	125.13	189.20	32.61	11.08	15.76	262.01	136.21	204.96	839			
(3) all attached	34.06	4.81	1.24	0.55	0.13	1.92	217.05	120.84	179.21	28.38	6.60	18.98	245.43	127.44	198.19	1692			
3. all households	100.00	4.64	1.19	0.51	0.10	1.80	189.48	111.19	177.02	36.51	14.34	26.11	225.99	125.53	203.13	5214			

number of sample villages : 904

TABLE (13.21) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Bihar																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(1) with land	31.71	5.23	1.26	0.54	0.09	1.89	181.32	113.42	164.81	26.67	5.30	4.69	207.99	118.72	169.50	764
(2) without land	22.80	4.42	0.95	0.64	0.10	1.69	205.22	147.37	234.66	36.48	14.40	13.50	241.70	161.77	248.16	484
(3) all casual	54.51	4.89	1.13	0.58	0.10	1.81	189.71	129.04	196.18	30.12	9.49	8.65	219.83	138.53	204.83	1248
2. attached :																
(1) with land	29.46	5.28	1.34	0.56	0.11	2.01	198.71	104.08	129.19	25.19	2.73	26.96	223.90	106.81	156.15	630
(2) without land	16.03	4.67	1.05	0.55	0.11	1.71	169.81	84.38	125.21	44.64	18.11	15.98	214.45	102.49	141.19	312
(3) all attached	45.49	5.06	1.23	0.56	0.11	1.90	190.03	97.26	127.77	31.03	8.06	23.05	221.06	105.32	150.82	942
3. all households	100.00	4.97	1.18	0.57	0.10	1.85	189.81	114.93	162.44	30.55	8.85	15.75	220.36	123.78	178.19	2190

number of sample villages : 373

TABLE (13.22) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

West Bengal																					
category of household	percent- average age of size of house- holds	average number of days per agricultural labourer employed on wages during the year 1956-57															number of sample house- holds				
		average number of agricultural labourers per household					agricultural operations					non-agri. operations						total			
		men		women		children	men		women		children	men		women		children		men		women	
		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)						
1. casual :																					
(1) with land	28.56	4.84	1.34	0.28	0.05	1.67	158.86	138.59	144.33	59.99	27.74	70.62	218.85	166.33	214.95	425					
(2) without land	56.06	4.11	1.17	0.16	0.04	1.37	177.88	129.30	234.41	59.35	48.61	85.19	237.23	177.91	319.60	813					
(3) all casual	84.62	4.36	1.23	0.20	0.04	1.47	170.86	133.68	201.86	59.58	38.78	79.93	230.44	172.46	281.79	1238					
2. attached :																					
(1) with land	4.83	4.74	1.44	0.24	0.07	1.75	238.61	188.19	252.93	30.15	—	—	268.76	188.19	252.93	84					
(2) without land	10.55	4.31	1.35	0.35	0.09	1.79	278.85	139.77	243.97	29.83	—	49.14	308.68	139.77	293.11	204					
(3) all attached	15.38	4.44	1.38	0.32	0.08	1.78	265.66	151.57	246.23	29.94	—	36.71	295.60	151.57	282.94	288					
3. all households	100.00	4.37	1.25	0.22	0.05	1.52	186.98	137.69	212.93	54.54	30.11	69.15	241.53	167.80	282.08	1526					

number of sample villages : 251

TABLE (13.23) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Orissa																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(.1) with land	45.42	4.76	1.29	0.69	0.16	2.14	134.10	43.06	112.26	27.57	22.57	47.62	161.67	65.63	159.88	409
(.2) without land	35.47	3.56	0.93	0.71	0.10	1.74	174.09	84.95	200.60	46.03	25.51	30.14	220.12	110.46	230.74	381
(.3) all casual	80.89	4.24	1.14	0.70	0.13	1.97	148.38	61.80	141.26	34.17	23.89	41.89	182.55	85.69	183.15	790
2. attached :																
(.1) with land	7.62	4.67	1.30	0.53	0.29	2.12	256.61	104.05	247.45	22.13	7.66	16.58	278.74	111.71	264.03	91
(.2) without land	11.49	3.82	1.18	0.65	0.22	2.05	299.45	115.20	230.35	15.68	7.68	11.97	315.14	122.88	242.32	129
(.3) all attached	19.11	4.16	1.22	0.61	0.25	2.08	281.39	111.28	238.40	18.40	7.67	14.14	299.79	118.95	252.54	220
3. all households	100.00	4.22	1.15	0.68	0.16	1.99	175.48	70.20	170.81	30.95	21.14	33.45	206.43	91.34	204.26	1010

number of sample villages : 144

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (13.24): EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Assam, Manipur and Tripura																				
category of household	percent- average age of house- holds	average number of days per agricultural labourer employed on wages during the year 1956-57															number of sample house- holds			
		average number of agricultural labourers per household						agricultural operations												
		men			women children			men			women children			non-agri. operations				total		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)		(16)	(17)	
1. casual :																				
(1) with land	14.14	4.19	1.12	0.32	0.03	1.47	198.41	77.80	—	7.33	7.74	—	205.74	85.54	—	64				
(2) without land	27.51	4.11	1.10	0.36	0.06	1.52	210.45	162.79	203.85	80.64	51.26	2.95	291.09	214.05	206.80	182				
(3) all casual	41.65	4.41	1.10	0.35	0.05	1.50	206.26	136.37	167.33	55.15	37.37	2.42	261.41	174.10	169.95	246				
2. attached :																				
(1) with land	15.54	5.55	1.30	0.72	0.24	2.26	250.66	274.50	295.73	29.29	—	—	279.95	274.50	295.73	48				
(2) without land	42.81	3.73	1.05	0.64	0.15	1.84	289.17	240.08	256.08	14.78	0.47	2.04	303.95	240.55	258.84	194				
(3) all attached	58.35	4.22	1.12	0.66	0.18	1.96	277.26	250.08	271.10	19.27	0.33	1.29	296.53	250.41	272.39	242				
3. all households	100.00	4.18	1.12	0.53	0.12	1.77	247.88	219.12	253.47	34.11	10.51	1.49	281.99	229.63	254.96	488				

number of sample villages : 136

TABLE (13.3): EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Southern Zone																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(1) with land	31.89	4.72	1.16	0.89	0.15	2.20	148.61	116.83	148.63	20.21	7.00	14.38	168.82	123.83	163.01	1435
(2) without land	52.44	3.75	0.94	0.88	0.15	1.97	179.87	139.95	204.88	20.25	9.01	16.93	200.12	148.96	221.81	2293
(3) all casual	84.33	4.12	1.03	0.88	0.15	2.06	166.50	131.18	183.06	20.24	8.25	15.94	186.74	139.43	199.00	3728
2. attached :																
(1) with land	4.48	4.71	1.31	0.95	0.24	2.50	260.19	136.51	291.16	15.09	6.82	—	275.28	143.33	291.16	187
(2) without land	11.19	4.26	1.19	0.95	0.29	2.43	301.12	173.98	278.39	7.18	5.56	11.84	308.30	179.54	290.23	486
(3) all attached	15.67	4.39	1.22	0.95	0.28	2.45	288.57	163.29	281.57	9.60	5.91	8.89	298.17	169.19	290.46	673
3. all households	100.00	4.16	1.06	0.89	0.17	2.12	188.60	136.53	208.28	18.31	7.86	13.24	206.91	144.39	221.52	4401

TABLE (13.31) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Andhra Pradesh																
category of household	percent- average age of house-holds	average number of days per agricultural labourer employed on wages during the year 1956-57										number of sample house-holds				
		average number of agricultural labourers per household					non-agri. operations					total				
		men		women		total	men		women		total	men		women		
		(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)		(9)	(10)	(11)	(12)	(13)
1. casual :																
(1) with land	28.27	4.64	1.12	1.01	0.24	2.37	160.47	113.78	160.20	20.56	8.36	11.41	181.03	122.14	171.61	578
(2) without land	54.98	3.67	0.95	0.93	0.19	2.07	195.68	146.14	213.92	21.46	9.13	5.55	217.14	155.27	219.47	1078
(3) all casual	83.25	4.00	1.00	0.96	0.21	2.17	182.38	134.52	193.09	21.12	8.86	7.82	203.50	143.38	200.91	1656
2. attached :																
(1) with land	4.76	4.91	1.43	1.00	0.32	2.75	305.61	163.99	274.06	19.72	8.36	—	325.33	172.35	274.06	111
(2) without land	11.99	4.15	1.22	0.91	0.37	2.50	332.15	173.17	275.52	1.41	5.63	9.36	333.56	178.80	284.88	274
(3) all attached	16.75	4.37	1.27	0.94	0.36	2.57	323.70	170.40	275.16	7.25	6.47	7.00	330.95	176.87	282.16	385
3. all households	100.00	4.06	1.06	0.95	0.23	2.24	211.11	140.43	214.11	18.30	8.46	7.61	229.41	148.89	221.79	2041
number of sample villages :																295

number of sample villages : 295

TABLE (13.32) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Madras																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(1) with land	30.17	4.45	1.18	0.83	0.12	2.13	141.65	120.44	131.04	21.90	5.29	22.12	163.55	125.73	153.16	473
(2) without land	54.82	3.65	0.92	0.85	0.12	1.89	162.73	135.47	187.54	21.41	9.10	39.15	184.14	144.57	226.69	943
(3) all casual	84.99	3.93	1.01	0.84	0.12	1.97	154.01	130.24	166.60	21.61	7.77	32.84	175.62	138.01	199.44	1416
2. attached :																
(1) with land	4.34	4.32	1.23	0.87	0.17	2.27	207.30	99.42	336.58	11.18	4.19	—	218.48	103.61	336.58	55
(2) without land	10.67	4.21	1.18	0.91	0.24	2.33	289.80	186.33	287.61	9.86	4.42	17.68	299.66	190.75	305.29	155
(3) all attached	15.01	4.24	1.20	0.90	0.22	2.32	265.25	161.84	298.56	10.25	4.36	13.73	275.50	166.20	312.29	210
3. all households	100.00	3.98	1.04	0.85	0.14	2.03	173.25	135.23	199.30	19.65	7.23	25.46	192.90	142.46	224.76	1626
number of sample villages : 242																

number of sample villages : 242

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (13.33): EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

category of household		percent- average age of size of house- holds	average number of agricultural labourers per household				average number of days per agricultural labourer employed on wages during the year 1956-57										number of sample house- holds
			men	women	children	total	agricultural operations			non-agri. operations			total				
							men	women	children	men	women	children	men	women	children		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
1. casual :																	
(.1) with land		52.20	5.43	1.22	0.73	0.03	1.98	138.99	117.63	95.60	16.24	6.90	—	155.14	124.53	95.60	384
(.2) without land		34.14	4.86	1.09	0.74	0.02	1.85	173.39	119.18	208.36	8.26	7.51	—	181.65	126.69	208.36	272
(.3) all casual		86.34	5.20	1.17	0.73	0.03	1.93	151.64	118.54	133.21	13.29	7.61	—	164.93	125.70	133.21	656
2. attached :																	
(.1) with land		3.89	5.27	1.04	0.98	0.12	2.14	202.10	129.06	260.71	2.19	8.26	—	204.29	137.32	260.71	21
(.2) without land		9.77	5.00	1.09	1.29	0.08	2.46	180.04	143.77	236.59	27.33	8.31	—	207.37	152.08	236.59	57
(.3) all attached		13.66	5.08	1.07	1.21	0.09	2.37	186.13	140.35	245.70	20.39	8.30	—	206.52	148.65	245.70	78
3. all households		100.00	5.19	1.15	0.80	0.04	1.99	156.00	122.80	173.54	14.19	7.38	—	170.19	130.18	173.54	734

number of sample villages : 124

TABLE (13.4): EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

category of household	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	Western Zone	
																		number of sample villages : 595	
1. casual :	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)		
(1) with land		26.46	5.04	1.20	1.02	0.21	2.43	170.75	126.62	154.90	22.09	5.97	7.85	192.84	132.59	162.75	1035		
(2) without land		57.11	3.98	0.98	0.96	0.18	2.12	211.80	170.65	202.42	21.52	9.85	13.58	233.32	180.50	216.00	2215		
(3) all casual		83.57	4.32	1.05	0.98	0.19	2.22	196.88	156.14	185.78	21.72	8.57	11.58	218.60	164.71	197.36	3250		
2. attached :																			
(1) with land		3.05	5.09	1.35	0.92	0.30	2.57	247.56	148.17	158.95	20.23	0.99	18.66	267.79	149.16	177.61	111		
(2) without land		13.38	4.28	1.24	0.88	0.28	2.40	290.68	159.45	230.50	12.41	10.79	10.17	303.09	170.24	240.67	440		
(3) all attached		16.43	4.43	1.26	0.89	0.28	2.43	282.18	157.28	216.18	13.95	8.89	11.57	296.13	166.17	228.05	551		
3. all households		100.00	4.34	1.09	0.96	0.20	2.25	213.16	156.31	192.72	20.24	8.62	11.65	233.40	164.93	204.37	2801		

TABLE (13.41) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

category of household	Bombay															
	percent- average age of size of household			average number of days per agricultural labourer employed on wages during the year 1956-57												
	average number of agricultural labourers per household			agricultural operations				non-agri. operations				total		number of sample house-holds		
	men	women	children	total	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(1) with land	23.81	4.84	1.17	1.03	0.21	2.41	167.37	127.62	153.31	26.48	5.07	12.19	193.85	132.69	165.50	622
(2) without land	57.46	3.98	1.00	0.97	0.19	2.16	212.88	174.30	200.68	23.75	10.19	14.51	236.63	184.49	215.19	1503
(3) all casual	81.27	4.23	1.06	0.99	0.19	2.24	198.13	160.05	185.37	24.63	8.62	13.76	222.76	168.67	199.13	2125
2. attached :																
(1) with land	3.28	5.38	1.45	0.94	0.32	2.71	258.45	160.55	155.69	14.52	0.74	24.43	272.97	161.29	180.12	78
(2) without land	15.45	4.27	1.28	0.87	0.29	2.44	305.44	161.33	227.23	6.65	8.99	7.09	312.09	170.32	234.32	340
(3) all attached	18.73	4.46	1.29	0.89	0.30	2.48	206.32	161.19	213.63	8.18	7.44	10.39	304.50	168.63	224.02	418
3. all households	100.00	4.28	1.10	0.97	0.21	2.28	219.97	160.25	192.69	20.97	8.42	12.88	240.94	168.67	205.57	2543

number of sample villages : 412

TABLE (13.42) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

	Mysore															
	percent- average age of size of household			average number of days per agricultural labourer employed on wages during the year 1956-57												
	average number of agricultural labourers per household			agricultural operations				non-agri. operations				total		number of sample house-holds		
	men	women	children	total	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(1) with land	31.97	5.35	1.28	1.00	0.20	2.48	175.51	125.00	157.58	15.90	7.40	0.50	191.41	132.40	158.08	413
(2) without land	56.38	3.99	0.92	0.93	0.16	2.01	209.31	162.55	206.69	16.35	9.11	11.32	225.66	171.66	218.01	712
(3) all casual	88.35	4.48	1.05	0.95	0.17	2.17	194.45	148.36	186.64	16.19	8.45	6.90	210.64	156.81	193.54	1125
2. attached :																
(1) with land	2.56	4.32	1.07	0.87	0.26	2.20	208.50	112.40	169.45	40.72	1.72	—	249.22	114.12	169.45	33
(2) without land	9.09	4.32	1.13	0.91	0.23	2.27	232.11	153.05	244.75	35.25	16.93	23.65	267.36	169.98	268.40	100
(3) all attached	11.65	4.32	1.12	0.90	0.24	2.26	227.14	144.39	226.62	36.40	13.69	17.95	263.54	158.08	244.57	133
3. all households	100.00	4.46	1.06	0.95	0.18	2.19	198.49	147.91	192.82	18.65	9.04	8.61	217.14	156.95	201.43	1258

number of sample villages : 183

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (13.5) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

average number of days per agricultural labourer employed on wages during the year 1956-57																	number of sample house-holds		
category of household	percent- average age of house-holds	average number of agricultural labourers per household					agricultural operations											total	
		men		women		children	total	men		women		children	men	women	children				
		(4)	(5)	(6)	(7)			(8)	(9)	(10)	(11)					(12)		(13)	(14)
1. casual :																			
(1) with land	13.34	4.93	1.17	0.69	0.23	2.09	131.71	108.95	110.11	27.93	14.55	7.05	159.64	123.50	117.16	284			
(2) without land	47.17	4.46	1.11	0.50	0.11	1.72	166.19	122.18	169.44	33.42	19.96	4.30	199.61	142.14	173.74	726			
(3) all casual	60.51	4.56	1.13	0.54	0.13	1.80	158.31	118.44	147.47	29.18	16.08	6.03	187.49	134.52	153.50	1010			
2. attached :																			
(1) with land	5.22	5.47	1.47	0.33	0.13	1.93	269.21	114.31	230.94	21.80	32.24	6.93	291.01	146.55	237.87	161			
(2) without land	34.27	5.25	1.32	0.27	0.19	1.78	295.34	170.90	278.05	6.98	22.22	5.17	302.32	193.12	283.22	560			
(3) all attached	39.49	5.28	1.34	0.28	0.18	1.80	291.55	161.96	273.66	9.12	23.80	5.33	300.67	185.76	278.99	721			
3. all households	100.00	4.85	1.21	0.44	0.45	1.80	216.27	129.35	206.80	20.43	18.01	5.70	236.70	147.36	212.50	1731			

number of sample villages : 576

TABLE (13.51) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD																Rajasthan
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. casual :																
(.1) with land	31.52	4.91	1.15	0.84	0.22	2.21	142.48	122.87	141.03	27.62	17.65	2.52	170.10	140.52	143.55	203
(.2) without land	52.70	3.62	0.87	0.83	0.08	1.78	180.67	113.52	136.56	35.69	14.62	10.81	216.36	128.14	147.37	268
(.3) all casual	84.22	4.10	0.97	0.84	0.14	1.95	163.76	117.05	139.28	32.11	15.76	5.79	195.87	132.81	145.07	471
2. attached :																
(.1) with land	4.28	3.85	1.08	0.85	0.19	2.12	156.07	119.19	161.41	101.96	51.52	18.93	258.03	170.71	180.34	33
(.2) without land	11.50	4.26	1.16	0.64	0.15	1.95	284.40	117.44	236.63	31.29	65.57	—	315.69	183.01	236.63	79
(.3) all attached	15.78	4.15	1.14	0.69	0.16	1.99	251.35	118.02	212.23	49.49	60.92	6.14	300.84	178.94	218.37	112
3. all households	100.00	4.11	1.00	0.82	0.14	1.96	179.52	117.16	152.32	35.24	21.83	5.86	214.76	138.99	158.18	583

number of sample villages : 192

TABLE (13.52) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Punjab, Delhi and Himachal Pradesh

category of household	percent- age of house- holds	average size of house- holds	average number of agricultural labourers per household			average number of days per agricultural labourer employed on wages during the year 1956-57							number of sample house- holds	
			men	women	children	total	agricultural operations			non-agri. operations			total	men children
							men	women	children	men	women	children		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. casual :														
(1) with land	5.61	4.97	1.21	0.33	0.23	1.77	104.91	23.64	37.38	47.20	34.14	8.50	152.11	57.78
(2) without land	45.08	4.88	1.24	0.33	0.12	1.69	161.65	133.12	181.32	25.35	14.46	5.67	187.00	147.58
(3) all casual	50.69	4.89	1.24	0.33	0.13	1.70	155.33	120.98	153.42	27.70	16.64	6.22	183.23	137.62
2. attached :														
(1) with land	5.35	6.04	1.59	0.17	0.11	1.87	298.08	106.14	267.76	0.39	—	—	298.47	106.14
(2) without land	43.96	5.37	1.33	0.23	0.20	1.76	297.78	185.01	281.71	4.32	8.75	5.63	302.10	193.76
(3) all attached	49.31	5.44	1.36	0.22	0.19	1.77	297.83	178.34	280.82	3.83	8.01	5.28	301.66	186.35
3. all households	100.00	5.16	1.30	0.28	0.16	1.74	228.81	144.66	227.35	15.37	13.22	5.67	244.18	157.88
number of sample villages : 192														

TABLE (13.53) : EMPLOYMENT ON WAGES OF AGRICULTURAL LABOURERS BY CATEGORY OF HOUSEHOLD

Jammu and Kashmir

category of household	percent- age of house- holds	average size of house- holds	average number of agricultural labourers per household			average number of days per agricultural labourer employed on wages during the year 1956-57							number of sample house- holds	
			men	women	children	total	agricultural operations			non-agri. operations			total	men children
							men	women	children	men	women	children		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. casual :														
(1) with land	4.52	5.88	1.42	—	—	1.42	299.05	—	—	—	—	—	299.05	—
(2) without land	23.54	4.10	1.06	—	0.02	1.08	61.84	—	365.00	—	—	—	61.84	—
(3) all casual	28.06	4.38	1.09	—	0.02	1.11	111.32	—	365.00	—	—	—	111.32	—
2. attached :														
(1) with land	28.25	5.37	1.72	—	0.09	1.81	236.26	—	336.92	58.81	—	—	295.07	336.92
(2) without land	43.69	4.89	1.40	0.07	0.07	1.54	186.43	136.87	250.94	28.08	—	—	214.51	136.87
(3) all attached	71.94	5.08	1.53	0.04	0.08	1.65	208.49	136.87	289.48	41.67	—	—	250.16	136.87
3. all households	100.00	4.88	1.41	0.03	0.06	1.50	187.26	136.87	296.56	32.57	—	—	219.83	136.87
number of sample villages : 192														

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (14.0): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	All India											
	percentage of mandays worked				average number of days worked during the year 1956-57 ¹				percentage of wages earned to total wages of men, women and children			
	men	women	children		men	women	children		men	women	children	average daily wage (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. agricultural												
(1) ploughing	8.05	0.52	0.24	26.66	2.08	5.93	9.93	0.38	0.18	1.00	0.59	0.60
(2) sowing	1.14	0.94	0.16	3.79	3.76	4.02	1.62	0.95	0.17	1.15	0.82	0.83
(3) transplanting	2.99	4.10	0.47	9.90	16.50	11.53	4.08	3.51	0.37	1.11	0.69	0.64
(4) weeding	6.13	7.65	1.20	20.31	30.81	29.81	6.69	4.90	0.76	0.88	0.52	0.51
(5) harvesting	13.20	11.54	1.68	43.68	46.45	41.55	15.32	8.32	1.15	0.93	0.58	0.55
(6) others	18.91	6.76	2.07	62.61	27.22	51.12	22.11	4.74	1.17	0.95	0.58	0.46
(7) all agricultural operations	50.42	31.51	5.82	166.95	126.82	143.96	59.75	22.80	3.80	0.96	0.59	0.53
2. non-agricultural												
	9.03	2.54	0.68	29.89	10.23	16.96	11.41	1.93	0.31	1.07	0.62	0.55
3. all operations												
	59.45	34.05	6.50	196.84	137.05	160.92	71.16	24.73	4.11	0.97	0.59	0.53
number of sample households: 20720												

TABLE (14.01): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Community Project Areas: All India											
	percentage of mandays worked				average number of days worked during the year 1956-57 ¹				percentage of wages earned to total wages of men, women and children			
	men	women	children		men	women	children		men	women	children	average daily wage (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. agricultural												
(1) ploughing	6.65	0.44	0.23	22.06	1.70	5.46	8.18	0.32	0.16	1.02	0.59	0.56
(2) sowing	0.91	0.67	0.02	3.01	2.55	0.40	1.13	0.68	0.01	1.02	0.84	0.43
(3) transplanting	3.23	4.74	0.58	10.71	18.12	13.71	4.84	4.32	0.43	1.26	0.76	0.63
(4) weeding	6.35	7.08	1.33	21.07	27.08	31.42	6.41	4.36	0.78	0.83	0.51	0.49
(5) harvesting	12.64	12.59	1.70	41.97	48.13	40.57	15.54	9.69	1.32	1.00	0.63	0.63
(6) others	19.39	7.04	2.00	64.38	26.93	47.48	22.27	4.64	1.08	0.96	0.56	0.04
(7) all agricultural operations	49.17	32.56	5.86	163.20	124.51	139.04	58.37	24.01	3.73	0.98	0.61	0.53
2. non-agricultural												
	9.04	2.61	0.76	30.01	9.99	18.02	11.56	1.87	0.41	1.08	0.62	0.56
3. all operations												
	58.21	35.17	6.62	193.21	134.50	157.06	69.93	25.88	4.19	1.00	0.61	0.53
number of sample households: 7232												

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

TABLE (14.02) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Other than Community Project Areas : All India									
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			
	men	women	children	men	women	children	men	women	children	average daily wage (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11) (12) (13)
1. agricultural										
(.1) ploughing	8.77	0.56	0.25	28.98	2.30	6.22	10.88	0.41	0.19	0.99 0.59 0.62
(.2) sowing	1.26	1.07	0.24	4.18	4.44	6.10	1.88	1.10	0.26	1.20 0.82 0.85
(.3) transplanting	2.88	3.77	0.41	9.52	15.61	10.34	3.67	3.08	0.33	1.02 0.65 0.65
(.4) weeding	6.03	7.97	1.15	19.94	32.94	29.03	6.85	5.19	0.75	0.90 0.52 0.52
(.5) harvesting	13.48	10.98	1.65	44.57	45.42	42.07	15.20	7.58	1.06	0.90 0.55 0.51
(.6) others	18.64	6.62	2.08	61.65	27.38	52.87	22.01	4.79	1.23	0.95 0.59 0.47
(.7) all agricultural operations	51.06	30.97	5.78	168.84	128.09	146.63	60.48	22.15	3.82	0.95 0.57 0.52
2. non-agricultural										
	9.03	2.51	0.65	29.83	10.37	16.38	11.32	1.96	0.26	1.06 0.63 0.54
3. all operations										
	60.09	33.48	6.43	198.67	138.46	163.01	71.81	24.11	4.08	0.96 0.58 0.53
number of sample households: 13488	number of sample villages: 2350									

TABLE (14.1) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Central Zone									
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			
	men	women	children	men	women	children	men	women	children	average daily wage (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11) (12) (13)
1. agricultural										
(.1) ploughing	7.06	0.40	0.40	22.14	1.39	6.94	8.34	0.30	0.31	0.89 0.55 0.58
(.2) sowing	1.17	0.79	0.03	3.66	2.73	0.51	1.32	0.66	0.02	0.84 0.63 0.38
(.3) transplanting	2.35	2.90	0.68	7.36	9.98	11.78	3.25	2.79	0.66	1.04 0.72 0.74
(.4) weeding	6.46	6.70	1.50	20.25	23.08	26.13	5.97	4.83	1.15	0.69 0.54 0.57
(.5) harvesting	13.41	11.50	2.04	42.02	39.56	35.60	16.86	9.77	1.83	0.94 0.64 0.67
(.6) others	16.21	8.66	2.49	50.82	29.80	43.49	7.02	6.55	1.34	0.82 0.58 0.41
(.7) all agricultural operations	46.66	30.95	7.14	146.25	106.54	124.45	52.76	24.90	5.31	0.86 0.61 0.56
2. non-agricultural										
	11.18	2.87	1.20	35.06	9.87	21.11	14.19	2.05	0.79	0.96 0.58 0.56
3. all operations										
	57.84	33.82	8.34	181.31	116.41	145.56	66.95	26.95	6.10	0.88 0.61 0.56

number of sample households: 5573

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (14.11): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Uttar Pradesh											
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. agricultural												
(1) ploughing	8.57	0.22	0.28	22.48	0.86	4.74	9.73	0.15	0.17	0.94	0.58	0.49
(2) sowing	1.25	0.80	0.01	3.27	3.16	0.24	1.26	0.49	0.01	0.84	0.51	0.39
(3) transplanting	4.09	3.89	1.08	10.74	15.41	18.05	5.24	4.35	0.98	1.06	0.74	0.75
(4) weeding	7.54	4.42	1.76	19.79	17.52	29.16	6.92	2.83	1.06	0.76	0.53	0.50
(5) harvesting	17.74	7.77	1.63	46.57	30.81	27.24	20.70	6.24	1.28	0.97	0.67	0.65
(6) others	13.63	4.90	2.29	35.76	19.44	38.06	14.87	3.80	1.14	0.90	0.67	0.41
(7) all agricultural operations	52.82	22.00	7.05	138.61	87.20	117.49	58.72	16.96	4.64	0.92	0.65	0.55
2. non-agricultural	15.01	1.93	1.19	39.38	7.64	19.91	17.75	1.28	0.65	0.99	0.59	0.48
3. all operations	67.83	23.93	8.24	177.99	94.84	137.40	76.47	18.24	5.29	0.94	0.64	0.54
number of sample households : 3751	number of sample villages : 624											

TABLE (14.12): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS OF TYPE OF OPERATION

operation	Madhya Pradesh											
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. agricultural												
(1) ploughing	5.32	0.62	0.52	21.52	1.85	9.69	6.30	0.50	0.52	0.80	0.54	0.64
(2) sowing	1.08	0.79	0.05	4.35	2.36	0.86	1.40	0.92	0.03	0.86	0.77	0.38
(3) transplanting	0.33	1.76	0.20	1.33	5.25	3.74	0.34	1.82	0.20	0.68	0.68	0.66
(4) weeding	5.22	9.34	1.21	21.12	27.92	22.33	4.58	7.75	1.28	0.58	0.55	0.69
(5) harvesting	8.38	15.79	2.52	33.90	47.18	46.41	11.26	14.93	2.62	0.89	0.62	0.68
(6) others	19.20	12.99	2.73	77.64	38.82	50.30	20.15	10.58	1.63	0.75	0.55	0.40
(7) all agricultural operations	39.53	41.29	7.23	159.86	123.38	133.33	44.03	36.50	6.28	0.76	0.59	0.57
2. non-agricultural	6.77	3.95	1.23	27.38	11.80	22.65	9.02	3.18	0.99	0.90	0.57	0.66
3. all operations	46.30	45.24	8.46	187.24	135.18	155.98	53.05	39.68	7.27	0.78	0.59	0.58
number of sample households : 1822	number of sample villages : 328											
¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.												

TABLE (14.2) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Eastern Zone											
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wages (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(.1) ploughing	13.40	0.58	0.19	38.02	3.35	7.21	14.17	0.48	0.11	1.04	0.81	0.60
(.2) sowing	1.79	1.55	0.44	5.07	8.90	17.08	2.57	1.59	0.42	1.42	1.01	0.87
(.3) transplanting	5.80	3.23	0.30	16.46	18.50	11.69	7.25	2.76	0.23	1.23	0.85	0.74
(.4) weeding	8.49	3.04	0.45	24.08	17.44	17.24	9.50	1.98	0.33	1.10	0.64	0.71
(.5) harvesting	16.25	5.90	0.89	46.13	33.82	34.65	17.14	4.20	0.68	1.03	0.70	0.73
(.6) others	14.32	3.72	1.42	40.63	21.29	54.98	14.62	2.49	0.82	1.00	0.66	0.55
(7) all agricultural operations	60.05	18.02	3.69	170.39	103.28	142.85	65.25	13.50	2.59	1.06	0.74	0.67
2. non-agricultural	14.75	2.88	0.61	41.86	16.47	23.42	16.32	2.13	0.21	1.16	0.71	0.60
3. all operations	74.80	20.90	4.30	212.25	119.75	166.27	81.57	15.63	2.80	1.08	0.74	0.66
number of sample households : 5124	number of sample villages : 904											

TABLE (14.21) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Bihar											
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wages (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(.1) ploughing	17.66	0.59	0.11	54.94	3.13	3.92	19.23	0.66	0.07	0.94	0.97	0.53
(.2) sowing	0.37	1.51	1.00	1.15	8.01	33.93	0.52	1.50	1.02	1.21	0.87	0.88
(.3) transplanting	5.68	4.11	0.39	17.69	21.70	13.31	6.65	4.01	0.37	1.01	0.85	0.83
(.4) weeding	7.05	3.95	0.77	21.95	20.85	26.32	7.28	2.63	0.63	0.89	0.61	0.71
(.5) harvesting	15.35	8.36	0.76	47.76	44.18	26.01	16.45	7.05	0.64	0.92	0.73	0.73
(.6) others	13.57	4.80	1.87	42.24	25.37	63.61	13.29	3.72	1.22	0.84	0.67	0.56
(7) all agricultural operations	59.68	23.32	4.90	185.73	123.24	167.10	63.42	19.72	3.95	0.91	0.74	0.70
2. non-agricultural	10.25	1.57	0.28	31.90	8.30	9.70	11.37	1.33	0.21	1.15	0.72	0.86
3. all operations	69.93	24.89	5.18	217.63	131.54	176.80	74.79	21.05	4.16	0.94	0.74	0.70
number of sample households : 2190	number of sample villages : 373											

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (14.22): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	West Bengal											
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	9.18	0.08	0.23	24.09	1.14	24.84	9.94	0.04	0.15	1.43	0.67	0.87
(2) sowing	4.81	2.83	—	12.63	39.21	—	5.46	2.45	—	1.50	1.15	—
(3) transplanting	8.46	1.86	0.09	22.20	25.78	10.36	10.25	1.63	0.06	1.60	1.16	0.88
(4) weeding	12.90	0.46	0.18	33.85	6.39	19.27	13.73	0.40	0.13	1.41	1.14	0.96
(5) harvesting	16.74	2.97	0.38	43.95	41.21	41.76	17.22	1.53	0.25	1.35	0.68	0.88
(6) others	11.41	0.62	0.43	29.93	8.55	47.60	12.00	0.47	0.29	1.39	1.01	0.88
(7) all agricultural operations	63.50	8.82	1.31	166.65	122.28	143.83	68.60	6.52	0.88	1.43	0.98	0.89
2. non-agricultural	23.02	2.45	0.90	60.43	33.89	97.85	22.18	1.73	0.09	1.27	0.90	0.66
3. all operations	86.52	11.27	2.21	227.08	156.17	241.68	90.78	8.25	0.97	1.38	0.96	0.86
number of sample households: 1526	number of sample villages: 251											

TABLE (14.23): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Orissa											
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	7.79	1.13	0.33	19.88	3.97	7.81	6.60	0.75	0.18	0.63	0.49	0.42
(2) sowing	1.18	0.16	0.02	3.01	0.58	0.46	1.72	0.14	0.01	1.09	0.62	0.50
(3) transplanting	3.55	3.36	0.37	9.06	11.80	8.81	4.13	2.53	0.23	0.87	0.56	0.44
(4) weeding	6.89	4.35	0.17	17.58	15.27	3.97	7.46	3.46	0.12	0.79	0.58	0.46
(5) harvesting	18.55	4.94	1.82	47.28	17.33	43.37	20.43	3.96	1.82	0.81	0.58	0.68
(6) others	17.97	4.97	1.66	45.80	17.43	39.37	20.26	3.43	0.98	0.82	0.51	0.37
(7) all agricultural operations	55.93	18.91	4.37	142.61	66.38	103.79	60.60	14.27	3.34	0.80	0.55	0.51
2. non-agricultural	13.64	6.17	1.04	34.77	21.43	24.85	16.49	4.79	0.51	0.90	0.57	0.44
3. all operations	69.57	25.02	5.41	177.38	87.81	128.64	77.09	19.06	3.85	0.82	0.56	0.50
number of sample households: 1010	number of sample villages: 144											

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

TABLE (14.24) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Assam, Manipur and Tripura

operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	22.34	0.86	—	72.86	8.00	—	26.88	1.21	—	1.68	1.99	—
(2) sowing	0.98	1.01	—	3.20	9.46	—	1.13	0.81	—	2.00	1.07	—
(3) transplanting	1.12	1.82	0.25	3.65	16.99	19.47	1.05	1.61	0.27	1.57	1.54	1.33
(4) weeding	3.79	2.82	—	12.37	26.32	—	4.09	2.13	—	1.44	1.07	—
(5) harvesting	11.56	2.15	0.70	37.69	20.07	55.25	12.18	1.61	0.54	1.46	0.99	0.93
(6) others	23.15	5.32	1.32	75.50	49.52	103.83	24.89	4.02	0.91	1.49	1.02	0.97
(7) all agricultural operations	62.94	13.98	2.27	205.27	130.36	178.55	70.22	11.39	1.72	1.54	1.15	1.00
2. non-agricultural	17.01	3.76	0.04	55.46	35.06	2.77	13.65	2.87	0.15	1.68	1.01	0.94
3. all operations	79.95	17.74	2.31	260.73	165.42	181.32	83.87	14.26	1.87	1.57	1.11	0.99
number of sample households : 488	number of sample villages : 136											

TABLE (14.3) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	6.80	0.68	0.13	23.07	2.38	3.42	8.96	0.47	0.08	0.97	0.50	0.47
(2) sowing	0.99	0.90	0.12	3.34	3.14	3.07	1.43	0.91	0.12	1.06	0.74	0.76
(3) transplanting	2.71	7.59	0.68	9.20	26.36	17.53	3.35	6.11	0.50	0.91	0.59	0.55
(4) weeding	3.55	8.77	1.07	12.03	30.47	27.53	3.58	5.77	0.65	0.74	0.48	0.45
(5) harvesting	11.65	13.69	1.57	39.53	47.51	40.53	13.24	10.00	1.03	0.83	0.54	0.48
(6) others	21.90	6.21	1.95	74.27	21.57	50.41	28.64	4.41	1.00	0.96	0.53	0.38
(7) all agricultural operations	47.60	37.84	5.52	161.44	131.43	142.49	59.20	27.67	3.38	0.91	0.54	0.45
2. non-agricultural	6.02	2.35	0.67	20.41	8.16	17.14	7.66	1.85	0.24	0.98	0.59	0.49
3. all operations	53.62	40.19	6.19	181.85	139.59	159.63	66.86	29.52	3.62	0.92	0.54	0.46

number of sample households : 4401

¹In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

TABLE (14.31): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Andhra Pradesh												
operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	4.52	0.85	0.22	17.55	2.96	4.69	5.72	0.54	0.14	0.90	0.46	0.46
(2) sowing	1.02	1.05	0.23	3.97	3.63	4.92	1.19	1.18	0.24	0.84	0.81	0.76
(3) transplanting	4.46	7.87	1.05	17.35	27.28	22.47	5.68	7.02	0.83	0.91	0.64	0.57
(4) weeding	4.33	0.01	1.72	16.84	34.70	37.04	4.96	7.06	1.10	0.82	0.50	0.46
(5) harvesting	13.32	14.22	1.61	51.76	49.26	34.49	15.30	11.14	1.10	0.81	0.56	0.49
(6) others	17.73	5.48	1.89	68.90	18.99	40.52	22.58	3.67	1.10	0.91	0.48	0.42
(7) all agricultural operations	45.38	39.48	6.72	176.37	136.82	144.13	55.43	30.61	4.51	0.87	0.55	0.48
2. non-agricultural	5.44	2.52	0.46	21.13	8.72	9.89	6.99	2.26	0.20	0.97	0.67	0.44
3. all operations	50.82	42.00	7.18	197.50	145.54	154.02	62.42	32.87	4.71	0.88	0.56	0.48
number of sample households: 2041	number of sample villages: 295											

TABLE (14.32): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Madras												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	9.19	0.57	0.05	29.18	1.92	1.42	12.65	0.48	0.04	0.91	0.56	0.51
(2) sowing	1.20	0.86	—	3.79	2.91	—	2.40	0.78	—	1.33	0.61	—
(3) transplanting	0.98	7.44	0.24	3.11	25.13	6.62	1.36	5.85	0.17	0.92	0.53	0.47
(4) weeding	3.41	8.69	0.45	10.82	29.36	12.55	3.13	5.80	0.29	0.61	0.45	0.43
(5) harvesting	11.36	14.89	1.84	36.07	50.31	51.27	13.90	10.90	1.21	0.81	0.49	0.45
(6) others	20.58	5.51	2.42	65.31	18.60	67.65	25.34	3.56	1.14	0.82	0.44	0.22
(7) all agricultural operations	46.72	37.96	5.00	148.28	128.23	139.51	58.78	27.37	2.85	0.84	0.48	0.39
2. non-agricultural												
	6.89	2.31	1.12	21.87	7.79	31.32	8.92	1.67	0.41	0.91	0.48	0.53
3. all operations												
	53.61	40.27	6.12	170.15	136.02	170.83	67.70	29.04	3.26	0.85	0.48	0.40
number of sample households : 1626												
number of sample villages : 242												
¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.												

TABLE (14.33) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Kerala											
	percentage of mandays worked ¹				average number of days worked during the year 1956-57				percentage of wages earned to total wages of men, women and children			
	men	women	children		men	women	children		men	women	children	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<i>1. agricultural</i>												
(.1) ploughing	9.63	0.22	—	23.43	0.87	—	11.39	0.20	—	1.30	1.00	—
(.2) sowing	0.02	0.34	—	0.05	1.33	—	0.03	0.33	—	1.50	1.08	—
(.3) transplanting	0.19	0.86	0.45	0.45	26.94	46.38	0.13	3.68	0.17	0.78	0.59	0.43
(.4) weeding	—	2.69	—	—	10.59	—	—	1.40	—	—	0.57	—
(.5) harvesting	4.02	6.34	0.39	9.79	24.95	40.95	4.86	4.16	0.29	1.32	0.72	0.82
(.6) others	48.32	12.59	0.54	117.62	49.50	55.88	56.29	8.80	0.33	1.28	0.77	0.66
(.7) all agricultural operations	62.18	29.04	1.38	151.34	114.18	143.21	72.20	18.57	0.79	1.28	0.70	0.63
<i>2. non-agricultural</i>												
(.1) all operations	5.73	1.67	—	13.94	6.56	—	7.06	0.88	—	1.36	0.58	—
number of sample households : 734	67.91	30.71	1.38	165.28	120.74	143.21	79.76	19.45	0.79	1.29	0.69	0.63

number of sample villages : 124

TABLE (14.4) : WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Western Zone											
	percentage of mandays worked ¹				average number of days worked during the year 1956-57				percentage of wages earned to total wages of men, women and children			
	men	women	children		men	women	children		men	women	children	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<i>1. agricultural</i>												
(.1) ploughing	4.82	0.34	0.33	20.29	1.37	7.31	6.31	0.22	0.30	0.94	0.45	0.64
(.2) sowing	0.62	0.51	0.01	2.60	2.03	0.17	0.78	0.44	0.01	0.89	0.62	0.75
(.3) transplanting	1.04	1.73	0.26	4.39	6.89	5.89	1.63	2.26	0.24	1.11	0.93	0.64
(.4) weeding	6.61	11.91	2.01	27.83	47.49	44.78	7.10	8.38	1.30	0.76	0.50	0.45
(.5) harvesting	12.13	15.26	2.40	51.11	60.82	53.54	14.42	11.49	1.60	0.84	0.53	0.46
(.6) others	20.56	9.39	2.47	86.64	37.41	55.30	25.33	7.38	1.77	0.88	0.57	0.50
(.7) all agricultural operations	45.78	39.14	7.48	192.86	156.01	166.99	55.57	30.17	5.22	0.86	0.55	0.49
<i>2. non-agricultural</i>												
(.1) all operations	5.04	2.12	0.44	21.22	8.43	9.82	7.06	1.77	0.21	1.03	0.60	0.50
number of sample households : 3801	50.82	41.26	7.92	214.08	164.44	176.81	62.63	31.94	5.43	0.88	0.55	0.49

number of sample villages : 595

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (14.41): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Bombay									
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)
	men	women	children	men	women	children	men	women	children	men women children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11) (12) (13)
1. <i>agricultural</i>										
(1) ploughing	4.26	0.19	0.38	18.67	0.79	8.28	5.87	0.14	0.32	0.97 0.45 0.59
(2) sowing	0.63	0.34	—	2.77	1.33	—	0.79	0.27	—	0.88 0.56 —
(3) transplanting	0.91	1.55	0.28	3.98	6.15	5.96	1.44	2.09	0.24	1.12 0.96 0.61
(4) weeding	6.99	13.22	2.37	30.65	52.44	51.03	7.89	9.47	1.50	0.79 0.51 0.44
(5) harvesting	11.83	15.47	2.05	51.87	61.38	44.17	14.62	11.75	1.49	0.87 0.54 0.50
(6) others	19.51	9.41	2.57	85.56	37.32	55.14	23.80	7.13	1.89	0.87 0.55 0.51
(7) all agricultural operations	44.13	40.18	7.65	193.50	159.41	164.58	54.41	30.85	5.44	0.87 0.55 0.50
2. non-agricultural	5.39	2.15	0.50	23.65	8.53	10.82	7.29	1.80	0.21	0.99 0.60 0.48
3. all operations	49.52	42.33	8.15	217.15	167.96	175.40	61.70	32.65	5.65	0.88 0.55 0.50
number of sample households: 2543	number of sample villages: 412									

TABLE (14.42): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

operation	Mysore									
	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)
	men	women	children	men	women	children	men	women	children	men women children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11) (12) (13)
1. <i>agricultural</i>										
(1) ploughing	6.04	0.66	0.20	23.44	2.65	4.87	7.27	0.42	0.25	0.88 0.45 0.89
(2) sowing	0.58	0.89	0.02	2.25	3.57	0.60	0.76	0.82	0.03	0.92 0.66 0.75
(3) transplanting	1.34	2.12	0.24	5.18	8.53	5.72	2.04	2.61	0.24	1.08 0.87 0.72
(4) weeding	5.77	9.60	1.21	22.37	36.48	29.34	5.38	6.00	0.85	0.66 0.47 0.50
(5) harvesting	12.80	14.81	3.17	49.65	59.60	76.79	13.98	10.95	1.83	0.77 0.53 0.40
(6) others	22.87	9.34	2.29	88.74	37.60	55.61	28.64	7.92	1.52	0.89 0.61 0.47
(7) all agricultural operations	49.40	36.88	7.13	191.63	148.43	172.93	58.07	28.72	4.72	0.84 0.55 0.47
2. non-agricultural	4.25	2.04	0.30	16.51	8.21	7.35	6.57	1.69	0.23	1.12 0.59 0.56
3. all operations	53.65	38.92	7.43	208.14	156.64	180.28	64.64	30.41	4.95	0.86 0.56 0.47
number of sample households: 1258	number of sample villages: 183									

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

TABLE (14.5): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Northern Zone												
operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men		women children	men		women children	men		women children	men		women children
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	6.39	0.20	0.17	16.61	0.95	3.35	9.02	0.04	0.20	1.82	0.27	1.50
(2) sowing	1.15	0.09	0.02	3.93	0.44	0.40	1.09	0.03	0.01	1.29	0.38	0.94
(3) transplanting	0.43	0.82	—	1.11	4.01	—	0.44	0.43	—	1.33	0.68	—
(4) weeding	7.09	6.59	0.99	18.42	32.25	19.61	7.39	3.33	0.43	1.34	0.67	0.59
(5) harvesting	9.03	7.17	1.61	23.46	35.04	31.66	14.16	5.82	0.57	2.02	1.05	0.47
(6) others	33.11	6.77	3.17	86.06	33.08	62.61	39.69	3.48	1.38	1.56	0.68	0.58
(7) all agricultural operations	57.56	21.64	5.96	149.59	105.77	117.63	71.79	13.13	2.59	1.63	0.79	0.58
2. non-agricultural	10.95	3.43	0.46	28.47	16.78	8.98	10.96	1.24	0.29	1.33	0.52	0.83
3. all operations	68.51	25.07	6.42	178.06	122.55	126.61	82.75	14.37	2.88	1.58	0.76	0.60
number of sample households : 1731												
number of sample villages : 576												

TABLE (14.51): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Rajasthan												
operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men		women children	men		women children	men		women children	men		women children
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>agricultural</i>												
(1) ploughing	3.83	0.43	0.04	13.23	1.53	0.95	5.20	0.15	0.08	1.08	0.27	1.50
(2) sowing	2.64	0.20	—	9.11	0.70	—	2.33	0.09	—	1.10	0.08	—
(3) transplanting	0.03	0.89	—	0.09	3.15	—	0.03	0.39	—	1.00	0.35	—
(4) weeding	6.85	14.43	1.79	23.67	50.99	39.70	7.10	11.68	0.91	0.83	0.65	0.44
(5) harvesting	6.57	7.52	0.95	22.72	26.56	21.13	9.01	6.33	0.64	1.10	0.67	0.54
(6) others	26.04	9.76	3.14	89.97	34.47	69.29	31.18	6.64	1.58	0.96	0.54	0.40
(7) all agricultural operations	45.96	33.23	5.92	158.79	117.40	131.07	54.85	25.28	3.21	0.98	0.61	0.44
2. non-agricultural	9.48	5.16	0.25	32.75	18.22	5.57	13.13	3.10	0.43	1.25	0.60	1.36
3. all operations	55.44	38.39	6.17	191.54	135.62	136.64	67.98	28.38	3.64	1.02	0.60	0.48

number of sample households : 583

¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (14.52): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Punjab, Delhi and Himachal Pradesh												
operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. agricultural												
(1) ploughing	8.44	—	0.27	18.39	—	4.92	10.48	—	0.24	2.08	—	1.50
(2) sowing	0.62	—	0.04	1.36	—	0.66	0.62	—	0.02	1.67	—	0.94
(3) transplanting	0.75	0.76	—	1.63	5.28	—	0.60	0.45	—	1.34	1.00	—
(4) weeding	7.29	0.33	0.36	15.89	2.31	6.59	7.52	0.19	0.25	1.73	1.94	1.16
(5) harvesting	10.91	7.01	2.11	23.78	49.03	38.21	16.10	5.64	0.54	2.47	1.40	0.45
(6) others	38.62	4.42	3.22	84.17	30.90	58.33	42.81	2.29	1.31	1.89	0.93	0.72
(7) all agricultural operations	66.63	12.52	6.00	145.22	87.52	108.71	78.13	8.57	2.36	1.98	1.22	0.69
2. non-agricultural	12.16	2.07	0.62	26.49	14.51	11.20	10.16	0.54	0.24	1.38	0.40	0.66
3. all operations	78.79	14.59	6.62	171.71	102.03	119.91	88.29	9.11	2.60	1.89	1.09	0.69
number of sample households : 986												

TABLE (14.53): WAGE EMPLOYMENT AND WAGES OF CASUAL AGRICULTURAL LABOURERS BY TYPE OF OPERATION

Jammu and Kashmir												
operation	percentage of mandays worked ¹			average number of days worked during the year 1956-57			percentage of wages earned to total wages of men, women and children			average daily wage (Rs.)		
	men	women	children	men	women	children	men	women	children	men	women	children
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. agricultural												
(1) ploughing	—	—	—	—	—	—	—	—	—	—	—	—
(2) sowing	—	—	—	—	—	—	—	—	—	—	—	—
(3) transplanting	—	—	—	—	—	—	—	—	—	—	—	—
(4) weeding	—	—	—	—	—	—	—	—	—	—	—	—
(5) harvesting	28.46	—	5.69	33.18	—	365.00	17.70	—	0.78	0.65	—	0.14
(6) others	65.85	—	—	76.79	—	—	81.52	—	—	1.28	—	—
(7) all agricultural operations	94.31	—	5.69	109.97	—	365.00	99.22	—	0.78	1.09	—	0.14
2. non-agricultural	—	—	—	—	—	—	—	—	—	—	—	—
3. all operations	94.31	—	5.69	109.97	—	365.00	99.22	—	0.78	1.09	—	0.14
number of sample households : 162												
¹ In calculating the percentages, the working days of adult female and child casual agricultural labourers have been taken at par with those of adult male casual agricultural labourers.												

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TABLE (15.0) : UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

All India

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	5.33	0.80	0.47	0.43	0.15	2.61	7.79
2. October 1956	5.53	0.64	0.30	0.46	0.14	2.52	9.59
3. November 1956	5.82	0.58	0.29	0.35	0.16	2.18	9.38
4. December 1956	3.91	0.51	0.12	0.45	0.21	2.39	7.59
5. January 1957	4.49	0.89	0.16	0.86	0.24	3.28	9.92
6. February 1957	4.32	0.49	0.03	0.53	0.19	2.96	8.52
7. March 1957	3.72	1.14	0.09	0.89	0.74	2.38	8.96
8. April 1957	4.45	0.94	—	1.41	0.30	2.64	9.74
9. May 1957	5.95	0.95	0.03	1.15	0.53	2.72	11.33
10. June 1957	4.75	0.76	0.04	1.44	0.19	2.52	9.70
11. July 1957	4.17	1.14	0.19	0.48	0.12	1.97	8.07
12. August 1957	3.74	0.95	0.10	0.45	0.23	2.29	7.76
13. monthly average	4.68	0.82	0.15	0.74	0.27	2.54	9.20

number of sample households : 20720

number of sample villages : 3688

TABLE (15.01) : UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Community Project Areas : All India

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	4.99	0.58	0.21	0.68	0.25	3.45	10.16
2. October 1956	4.40	0.61	0.11	0.59	0.19	2.47	8.37
3. November 1956	5.28	0.75	0.07	0.51	0.05	1.92	8.58
4. December 1956	3.96	0.31	0.03	0.40	0.16	2.50	7.36
5. January 1957	4.38	1.33	0.19	0.68	0.30	3.14	10.02
6. February 1957	5.36	0.57	—	0.44	0.17	2.47	9.01
7. March 1957	4.05	1.21	0.03	0.80	0.96	2.62	9.67
8. April 1957	4.22	0.89	—	2.90	0.22	2.28	10.51
9. May 1957	5.97	0.99	0.08	1.35	0.49	2.99	11.87
10. June 1957	5.13	0.55	0.07	1.68	0.12	3.08	10.63
11. July 1957	3.19	1.29	0.21	0.56	0.17	1.92	7.34
12. August 1957	2.93	0.79	0.16	0.49	0.19	2.34	6.89
13. monthly average	4.48	0.83	0.10	0.92	0.27	2.60	9.20

number of sample households : 7232

number of sample villages : 1338

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (15.02): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Other than Community Project Areas : All India

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	5.49	0.91	0.59	0.32	0.10	2.20	9.61
2. October 1956	6.04	0.66	0.38	0.40	0.12	2.53	10.13
3. November 1956	6.00	0.52	0.36	0.30	0.20	2.27	9.65
4. December 1956	3.89	0.60	0.16	0.47	0.23	2.34	7.69
5. January 1957	4.54	0.68	0.15	0.95	0.21	3.35	9.88
6. February 1957	3.79	0.44	0.05	0.57	0.20	0.22	8.27
7. March 1957	3.55	1.10	0.12	0.93	0.64	2.27	8.61
8. April 1957	4.58	0.97	—	0.59	0.34	2.84	9.32
9. May 1957	5.94	0.92	0.00	1.01	0.56	2.53	10.96
10. June 1957	4.55	0.87	0.02	1.32	0.22	2.24	9.22
11. July 1957	4.60	1.07	0.18	0.45	0.10	1.99	8.39
12. August 1957	4.31	0.75	0.15	0.65	0.23	2.28	8.37
13. monthly average	4.78	0.79	0.18	0.67	0.26	2.50	9.18

number of sample households : 13488

number of sample villages : 952

TABLE (15.1): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Central Zone

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	2.70	1.15	0.91	0.48	0.22	3.31	8.77
2. October 1956	2.71	0.76	0.13	0.50	0.05	2.70	6.85
3. November 1956	2.67	0.36	0.01	0.40	0.11	2.63	6.18
4. December 1956	3.03	0.42	0.09	0.74	0.15	2.40	6.83
5. January 1957	3.63	0.69	0.33	0.68	0.06	4.07	9.46
6. February 1957	2.03	0.43	0.01	0.99	0.10	2.28	5.84
7. March 1957	2.52	1.07	0.04	0.78	1.07	2.39	7.87
8. April 1957	2.22	1.14	—	1.18	0.31	3.73	8.58
9. May 1957	3.16	1.42	0.00	1.94	0.49	4.04	11.05
10. June 1957	3.64	0.67	0.01	2.94	0.18	2.59	10.03
11. July 1957	3.26	0.61	0.15	0.67	0.26	2.42	7.37
12. August 1957	2.10	1.17	0.12	0.79	0.31	2.98	7.47
13. monthly average	2.81	0.83	0.15	1.00	0.28	2.97	8.04

number of sample households : 5573

number of sample villages : 952

TABLE (15.11): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Uttar Pradesh

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	3.30	1.41	1.37	0.22	0.02	3.39	9.71
2. October 1956	3.30	1.06	0.24	0.54	0.01	2.78	7.93
3. November 1956	2.57	0.37	0.02	0.28	—	3.37	6.61
4. December 1956	3.47	0.49	0.12	0.94	0.15	2.25	7.42
5. January 1957	3.54	0.64	0.51	0.51	0.01	4.33	9.54
6. February 1957	2.22	0.49	0.01	0.67	0.16	3.29	6.84
7. March 1957	1.44	1.34	0.06	0.57	0.45	2.02	5.88
8. April 1957	1.93	1.69	—	1.21	0.04	1.93	6.80
9. May 1957	3.62	1.51	0.00	2.34	0.29	3.26	11.02
10. June 1957	5.02	0.93	0.01	2.70	0.11	3.40	12.17
11. July 1957	4.19	0.61	0.20	0.88	0.24	3.08	9.20
12. August 1957	2.81	1.27	0.01	0.61	0.21	2.88	7.79
13. monthly average	3.12	0.99	0.21	0.96	0.14	3.00	8.42

number of sample households : 3751

number of sample villages : 624

TABLE (15.12): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Madhya Pradesh

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	1.50	0.62	—	1.02	0.63	3.13	6.90
2. October 1956	2.03	0.42	—	0.46	0.09	2.61	5.61
3. November 1956	2.83	0.36	—	0.59	0.27	1.46	5.51
4. December 1956	2.43	0.33	0.04	0.48	0.15	2.59	6.02
5. January 1957	3.77	0.76	0.03	0.93	0.15	3.67	9.37
6. February 1957	1.78	0.37	—	1.38	0.02	1.00	4.55
7. March 1957	4.33	0.63	—	1.15	2.10	3.00	11.21
8. April 1957	2.46	0.67	—	1.15	0.53	5.29	10.10
9. May 1957	2.15	1.23	—	1.06	0.94	5.76	11.14
10. June 1957	1.72	0.29	0.01	3.30	0.27	1.45	7.04
11. July 1957	1.30	0.60	0.04	0.22	0.28	1.01	3.45
12. August 1957	0.66	0.96	0.22	1.14	0.52	3.33	6.83
13. monthly average	2.25	0.61	0.03	1.07	0.50	2.87	7.33

number of sample households : 1822

number of sample villages : 328

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (15.2): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Eastern Zone

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	7.50	0.77	0.66	0.25	0.05	2.09	11.32
2. October 1956	6.58	0.62	0.22	0.43	0.10	2.36	10.31
3. November 1956	7.50	0.56	0.30	0.40	0.09	1.77	10.62
4. December 1956	2.97	0.72	0.16	0.22	0.37	2.05	6.49
5. January 1957	5.20	1.13	0.22	0.86	0.17	3.31	10.89
6. February 1957	5.44	0.40	0.07	0.43	0.19	2.62	9.15
7. March 1957	2.86	1.60	0.24	1.22	0.42	2.18	8.52
8. April 1957	3.82	1.02	—	2.48	0.29	2.27	9.88
9. May 1957	7.20	1.09	0.02	0.94	0.79	1.84	11.88
10. June 1957	6.16	0.90	0.11	1.02	0.19	2.34	10.72
11. July 1957	3.93	1.00	0.36	0.15	0.08	2.01	7.53
12. August 1957	3.72	0.87	0.09	0.13	0.14	0.79	5.74
13. monthly average	5.23	0.89	0.21	0.71	0.24	2.13	9.41

number of sample households : 5214

number of sample villages : 904

TABLE (15.21): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Bihar

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	7.66	0.61	0.48	0.24	0.06	2.01	11.06
2. October 1956	5.85	0.78	0.41	0.32	0.09	2.38	9.83
3. November 1956	7.41	0.24	1.33	1.02	0.14	2.46	12.60
4. December 1956	3.21	0.83	0.26	0.34	0.53	1.75	6.92
5. January 1957	7.21	1.95	0.45	0.62	0.21	3.76	14.20
6. February 1957	7.07	0.21	—	0.28	0.11	2.34	10.01
7. March 1957	2.91	1.53	—	0.97	0.18	2.89	8.48
8. April 1957	4.29	1.21	—	0.15	0.10	4.10	9.85
9. May 1957	8.97	0.82	—	0.91	0.68	2.18	13.56
10. June 1957	6.89	0.58	0.03	1.04	0.26	2.80	11.60
11. July 1957	4.38	1.05	0.36	0.12	0.07	2.90	8.88
12. August 1957	4.25	1.13	0.07	0.03	0.18	1.10	6.76
13. monthly average	5.82	0.92	0.28	0.50	0.22	2.56	10.30

number of sample households : 2190

number of sample villages : 373

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TABLE (15.22) : UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

West Bengal

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	8.16	1.41	1.45	0.30	0.04	1.98	13.34
2. October 1956	11.25	0.99	0.17	0.17	0.04	0.76	13.38
3. November 1956	9.00	0.33	—	0.30	0.17	0.49	10.29
4. December 1956	0.99	0.76	—	0.09	—	2.42	4.26
5. January 1957	4.12	1.08	0.15	0.32	—	1.37	7.04
6. February 1957	5.72	0.69	—	0.26	—	1.58	8.25
7. March 1957	3.08	2.15	—	0.73	0.05	0.89	6.90
8. April 1957	5.48	0.36	—	0.79	0.10	0.49	7.22
9. May 1957	7.88	0.66	—	0.42	0.25	1.61	10.82
10. June 1957	7.27	0.62	0.16	0.20	—	1.08	9.33
11. July 1957	3.41	0.80	0.61	0.05	0.13	0.21	5.21
12. August 1957	4.00	0.48	0.21	0.26	0.08	—	5.03
13. monthly average	5.85	0.86	0.23	0.32	0.07	1.07	8.40

number of sample households : 1526

number of sample villages : 251

TABLE (15.23) : UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Orissa

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	5.08	0.27	—	0.14	—	2.94	8.43
2. October 1956	6.44	0.41	—	1.16	0.13	3.67	11.81
3. November 1956	6.98	0.98	—	0.16	—	2.00	10.12
4. December 1956	4.62	0.52	—	—	0.18	2.20	7.52
5. January 1957	4.21	0.15	—	2.10	0.14	5.49	12.09
6. February 1957	2.98	0.55	0.25	0.80	0.42	3.73	8.73
7. March 1957	4.51	2.23	2.25	0.88	0.82	0.86	11.55
8. April 1957	2.33	1.09	—	7.50	0.74	0.16	11.82
9. May 1957	4.06	2.62	—	3.01	0.27	1.73	11.69
10. June 1957	3.32	1.76	0.23	2.00	0.25	2.81	10.37
11. July 1957	4.45	1.41	—	0.48	—	0.98	7.32
12. August 1957	1.96	0.38	0.06	0.35	0.08	0.87	3.70
13. monthly average	4.25	1.04	0.23	1.55	0.25	2.28	9.60

number of sample households : 1010

number of sample villages : 114

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (15.24): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Assam, Manipur and Tripura							
month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	—	—	—	—	—	2.28	2.28
2. October 1956	3.02	0.13	0.16	—	0.13	2.43	5.87
3. November 1956	—	—	—	—	—	6.84	6.84
4. December 1956	0.25	—	—	—	—	3.88	4.13
5. January 1957	1.42	—	—	0.24	0.79	1.58	4.03
6. February 1957	0.68	—	—	—	0.45	2.88	4.01
7. March 1957	1.51	0.82	—	2.66	1.28	1.99	8.26
8. April 1957	1.76	—	—	0.12	—	0.29	2.17
9. May 1957	0.06	1.71	0.25	—	3.42	0.83	6.27
10. June 1957	0.17	7.12	0.10	—	0.10	0.31	7.80
11. July 1957	0.25	0.47	—	0.24	0.12	3.47	4.55
12. August 1957	—	1.24	—	—	0.46	3.40	5.10
13. monthly average	0.76	0.96	0.04	0.28	0.57	2.51	5.12

number of sample households : 488

number of sample villages : 136

TABLE (15.3): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Southern Zone							
month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	5.20	0.58	0.02	0.19	0.09	2.83	8.91
2. October 1956	8.15	0.39	—	0.29	0.27	2.29	11.39
3. November 1956	8.22	0.75	0.44	0.24	0.29	2.13	12.07
4. December 1956	6.89	0.36	0.03	0.37	0.10	3.05	10.80
5. January 1957	5.57	1.05	—	0.89	0.48	2.50	10.49
6. February 1957	4.18	0.31	—	0.42	0.23	3.74	8.88
7. March 1957	6.35	0.85	—	0.49	0.36	2.87	10.92
8. April 1957	5.84	0.79	—	0.62	0.03	2.46	9.74
9. May 1957	8.09	0.50	0.04	0.52	0.29	2.84	12.28
10. June 1957	6.13	0.91	—	0.24	0.12	2.98	10.38
11. July 1957	5.85	1.36	0.04	0.57	0.10	2.01	9.93
12. August 1957	5.69	0.73	0.01	0.26	0.10	2.88	9.67
13. monthly average	6.36	0.72	0.05	0.43	0.21	2.71	10.48

number of sample households : 4401

number of sample villages : 661

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TABLE (15.31): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE
AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF
UNEMPLOYMENT

Andhra Pradesh

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	4.52	0.92	—	0.17	—	2.65	8.26
2. October 1956	10.07	0.08	—	0.28	0.16	2.23	12.82
3. November 1956	6.06	0.52	0.21	0.18	—	2.25	9.22
4. December 1956	4.13	0.34	—	0.13	—	2.70	7.30
5. January 1957	3.20	0.56	—	0.65	0.11	2.99	7.51
6. February 1957	2.57	0.12	—	0.06	0.02	4.15	6.92
7. March 1957	6.12	0.56	—	0.04	0.56	2.80	10.08
8. April 1957	4.64	1.18	—	0.42	—	3.16	9.40
9. May 1957	6.82	0.19	—	0.80	0.05	2.55	10.41
10. June 1957	2.85	0.58	—	0.41	0.05	2.95	6.84
11. July 1957	3.24	1.25	—	0.73	—	2.10	7.32
12. August 1957	3.08	0.26	0.03	0.07	—	2.87	6.31
13. monthly average	4.80	0.55	0.02	0.33	0.08	2.77	8.55

number of sample households : 2041

number of sample villages : 295

TABLE (15.32): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE
AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF
UNEMPLOYMENT

Madras

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	5.50	0.08	—	0.21	0.11	3.03	8.93
2. October 1956	6.29	0.66	—	0.29	0.18	2.60	9.92
3. November 1956	9.82	1.10	0.87	0.40	0.35	1.94	14.48
4. December 1956	8.59	0.39	0.06	0.61	0.10	3.83	13.58
5. January 1957	7.98	1.54	—	1.15	0.52	2.17	13.36
6. February 1957	5.35	0.49	—	0.86	0.29	3.71	10.70
7. March 1957	5.58	1.18	—	1.06	0.14	2.84	10.80
8. April 1957	7.08	—	—	0.99	—	1.14	9.21
9. May 1957	9.18	0.66	0.08	0.38	0.29	3.45	14.04
10. June 1957	7.85	1.23	—	0.16	0.20	2.53	11.97
11. July 1957	7.43	1.05	—	0.41	0.03	1.74	10.66
12. August 1957	7.67	1.34	—	0.62	0.08	2.16	11.87
13. monthly average	7.37	0.82	0.08	0.60	0.19	2.58	11.64

number of sample households : 1626

number of sample villages : 242

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (15.33): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

								Kerala
month and year		unemployed due to						total
		want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September	1956	7.22	1.71	0.22	0.22	0.46	2.65	12.48
2. October	1956	8.16	0.47	—	0.30	0.63	2.39	11.95
3. November	1956	11.47	0.52	—	—	1.16	2.32	15.47
4. December	1956	8.92	0.32	—	0.08	0.47	0.57	10.36
5. January	1957	7.17	1.41	—	1.03	1.82	1.53	12.96
6. February	1957	9.46	0.74	—	0.35	1.50	0.64	12.69
7. March	1957	9.36	0.84	—	0.39	0.32	3.25	14.16
8. April	1957	8.70	1.01	—	0.55	0.32	2.58	13.16
9. May	1957	8.29	1.01	—	—	1.21	1.40	11.91
10. June	1957	10.23	0.90	—	—	0.08	4.33	15.54
11. July	1957	11.38	2.25	0.24	0.39	0.56	1.79	16.61
12. August	1957	9.82	0.81	—	—	0.48	4.75	15.86
13. monthly average		9.17	1.00	0.04	0.28	0.75	2.36	13.60
number of sample households : 734								number of sample villages : 124

TABLE (15.4): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

								Western Zone
month and year		unemployed due to						total
		want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September	1956	4.71	0.77	0.27	0.91	0.33	2.38	9.37
2. October	1956	2.67	0.88	1.01	0.76	0.04	2.98	8.25
3. November	1956	3.03	0.69	0.41	0.42	0.14	2.36	7.05
4. December	1956	2.47	0.30	0.17	0.65	0.15	2.07	5.81
5. January	1957	3.00	0.66	—	1.26	0.24	3.13	8.29
6. February	1957	3.79	0.90	0.00	0.59	0.19	3.42	8.89
7. March	1957	3.52	0.75	—	0.84	1.43	1.90	8.44
8. April	1957	6.63	0.70	—	0.84	0.71	2.57	11.45
9. May	1957	4.24	0.77	0.08	1.60	0.43	3.05	10.17
10. June	1957	2.69	0.52	—	1.81	0.30	2.13	7.45
11. July	1957	2.70	1.78	0.16	0.40	0.11	1.58	6.73
12. August	1957	2.84	1.09	0.23	0.63	0.54	3.07	8.40
13. monthly average		3.51	0.82	0.20	0.89	0.39	2.54	8.35
number of sample households : 3801								number of sample villages : 595

TABLE (15.41): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Bombay

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	5.33	0.90	0.32	0.94	0.44	1.76	9.69
2. October 1956	2.03	1.24	1.06	0.95	0.06	2.19	7.53
3. November 1956	3.24	0.53	0.48	0.50	0.07	1.90	6.72
4. December 1956	2.43	0.21	0.21	0.76	0.12	1.78	5.51
5. January 1957	2.78	0.29	—	1.63	0.19	3.15	8.04
6. February 1957	3.52	1.17	0.01	0.58	0.20	2.82	8.30
7. March 1957	2.09	0.97	—	1.00	1.55	2.07	7.68
8. April 1957	7.01	0.52	—	0.41	0.58	2.07	10.59
9. May 1957	3.94	0.59	0.04	1.84	0.09	2.88	9.38
10. June 1957	2.65	0.54	—	2.07	0.06	2.15	7.47
11. July 1957	2.80	1.14	0.05	0.29	0.11	1.27	5.66
12. August 1957	2.43	0.91	0.31	0.79	0.40	3.67	8.51
13. monthly average	3.34	0.75	0.21	0.98	0.32	2.31	7.91
number of sample households : 2543				number of sample villages : 412			

TABLE (15.42): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Mysore

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	3.93	0.60	0.22	0.88	0.20	3.17	9.00
2. October 1956	4.02	0.13	0.90	0.35	—	4.35	9.75
3. November 1956	2.59	1.02	0.27	0.24	0.29	3.34	7.75
4. December 1956	2.61	0.62	—	0.24	0.27	3.23	6.97
5. January 1957	3.36	1.26	—	0.66	0.31	3.10	8.69
6. February 1957	4.37	0.31	—	0.59	0.17	4.73	10.17
7. March 1957	7.66	0.09	—	0.39	1.09	1.43	10.66
8. April 1957	5.69	1.17	—	1.93	1.05	3.78	13.62
9. May 1957	4.65	1.03	0.13	1.28	0.88	3.27	11.24
10. June 1957	2.80	0.47	—	1.12	0.93	2.07	7.39
11. July 1957	2.45	3.43	0.44	0.70	0.11	2.35	9.48
12. August 1957	3.91	1.55	0.04	0.20	0.90	1.52	8.12
13. monthly average	4.00	0.98	0.17	0.71	0.52	3.01	9.39
number of sample households : 1258				number of sample villages : 183			

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (15.5): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

							Northern Zone
month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	3.64	1.04	0.52	0.99	0.22	3.09	9.50
2. October 1956	5.68	1.54	1.05	0.39	0.34	1.22	10.22
3. November 1956	1.80	0.02	—	0.25	0.18	2.80	5.05
4. December 1956	4.58	1.34	0.42	0.46	—	2.65	9.45
5. January 1957	5.45	0.63	0.26	0.22	0.51	2.93	10.00
6. February 1957	1.83	0.88	—	0.53	0.30	2.84	6.38
7. March 1957	4.52	0.97	—	1.88	0.19	4.88	12.44
8. April 1957	3.46	1.23	—	1.03	0.40	1.26	7.40
9. May 1957	2.08	0.65	0.06	0.99	0.32	0.99	5.09
10. June 1957	2.05	0.57	—	2.23	0.06	3.03	7.94
11. July 1957	3.96	1.25	0.17	1.54	0.01	0.84	7.77
12. August 1957	3.50	1.38	—	1.50	—	2.61	8.99
13. monthly average	3.57	0.96	0.21	1.00	0.21	2.42	8.37
number of sample households : 1731							number of sample villages : 576

TABLE (15.51): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

							Rajasthan
month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	4.49	—	—	—	—	4.01	8.50
2. October 1956	7.93	—	—	—	—	3.32	11.25
3. November 1956	1.18	—	—	—	—	2.47	3.65
4. December 1956	4.46	2.16	0.84	0.78	—	2.60	10.84
5. January 1957	3.55	—	—	0.34	—	5.81	9.70
6. February 1957	1.27	—	—	0.72	—	6.22	8.21
7. March 1957	2.52	0.91	—	1.69	0.31	5.66	11.09
8. April 1957	8.49	1.30	—	1.57	—	2.49	13.85
9. May 1957	0.69	0.33	—	1.49	1.06	1.19	4.76
10. June 1957	2.60	1.32	—	3.53	0.22	2.18	9.85
11. July 1957	5.47	1.07	0.69	2.82	0.05	0.36	10.46
12. August 1957	1.67	—	—	0.21	—	4.04	5.92
13. monthly average	3.71	0.59	0.13	1.10	0.14	3.34	9.01
number of sample households : 583							number of sample villages : 192

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TABLE (15.52): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Punjab, Delhi and Himachal Pradesh

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	3.56	1.32	—	1.23	0.28	2.94	9.33
2. October 1956	4.94	2.22	1.51	0.56	0.50	0.40	10.13
3. November 1956	2.13	0.03	—	0.36	0.26	2.98	5.76
4. December 1956	4.77	0.51	—	0.15	—	2.73	8.16
5. January 1957	5.68	0.74	0.31	0.20	0.60	2.36	9.89
6. February 1957	1.99	1.20	—	0.46	0.41	1.62	5.68
7. March 1957	7.42	1.17	—	2.37	—	2.32	13.28
8. April 1957	1.40	1.22	—	0.85	0.58	0.62	4.67
9. May 1957	2.30	0.70	0.06	0.91	0.21	0.96	5.14
10. June 1957	1.88	0.31	—	1.79	—	3.34	7.32
11. July 1957	3.49	1.32	—	1.13	—	0.99	6.93
12. August 1957	3.79	1.59	—	1.71	—	2.41	9.50
13. monthly average	3.64	1.03	0.16	0.98	0.23	1.97	8.01
number of sample households : 986				number of sample villages : 192			

TABLE (15.53): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF ADULT MALE AGRICULTURAL LABOURERS IN EACH MONTH BY REASON OF UNEMPLOYMENT

Jammu and Kashmir

month and year	unemployed due to						total
	want of work	own sickness	weather condition	household work, ceremonials	leave, rest, holiday	other reasons	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. September 1956	—	—	21.25	0.89	—	0.70	22.84
2. October 1956	—	—	—	—	—	—	—
3. November 1956	—	—	—	—	—	2.05	2.05
4. December 1956	—	—	—	—	—	—	—
5. January 1957	16.17	—	—	—	—	14.83	31.00
6. February 1957	28.00	—	—	—	—	—	28.00
7. March 1957	10.99	—	—	—	—	17.71	28.70
8. April 1957	—	—	5.46	—	—	3.61	9.07
9. May 1957	—	—	—	—	—	—	—
10. June 1957	—	—	—	—	—	1.80	1.80
11. July 1957	—	—	—	—	—	0.95	0.95
12. August 1957	—	—	—	—	—	—	—
13. monthly average	4.45	—	2.20	0.07	—	3.52	10.24
number of sample households : 162				number of sample villages : 192			

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (16.0): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

All India

category of household	average annual income per household (Rs.) from							percentage of annual income by source						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		cultiva- tion of land	agricul- tural wage employ- ment	non-agri- cultural wage employ- ment	occupa- tions other than farming	other sources	total	cultiva- tion of land	agricul- tural wage employ- ment	non-agri- cultural wage employ- ment	occupa- tions other than farming	other sources	total	number of sample house- holds
1. <i>casual</i>														
(.1) with land	78.49	230.89	50.70	11.98	14.84	386.90	20.29	59.67	13.10	3.10	3.84	100.00	6018	
(.2) without land	—	261.25	46.90	10.40	17.20	335.75	—	77.81	13.97	3.10	5.12	100.00	9137	
(.3) all casual	31.89	248.92	48.64	11.05	16.24	356.74	8.94	69.78	13.63	3.10	4.55	100.00	15155	
2. <i>attached</i>														
(.1) with land	73.98	316.54	44.36	11.12	11.14	457.14	16.18	69.25	9.70	2.43	2.44	100.00	2371	
(.2) without land	—	413.02	35.94	8.15	13.19	470.30	—	87.83	7.64	1.73	2.80	100.00	3194	
(.3) all attached	32.85	370.17	39.64	9.47	12.28	464.41	7.07	79.71	8.54	2.04	2.64	100.00	5565	
3. all households	32.15	281.08	46.34	10.62	15.19	385.38	8.34	72.94	12.02	2.76	3.94	100.00	20720	

number of sample villages : 3688

TABLE (16.01): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Community Project Areas : All India

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. <i>casual</i>													
(1) with land	78.81	227.81	52.50	13.45	16.61	389.18	20.25	58.53	13.49	3.46	4.27	100.00	1994
(2) without land	—	281.06	49.55	10.54	18.28	359.43	—	78.19	13.79	2.93	5.09	100.00	3235
(3) all casual	31.09	260.09	50.62	11.69	17.62	371.07	8.38	70.08	13.64	3.15	4.75	100.00	5229
2. <i>all attached</i>													
(1) with land	84.33	317.49	46.02	11.23	11.23	470.30	17.93	67.50	9.79	2.39	2.39	100.00	814
(2) without land	—	397.55	35.21	8.81	11.36	452.93	—	87.77	7.77	1.95	2.51	100.00	1189
(3) all attached	35.66	363.69	39.58	9.84	11.30	460.07	7.75	79.05	8.60	2.14	2.46	100.00	2003
3. all households	32.30	287.46	47.67	11.20	15.95	394.58	8.19	72.85	12.08	2.84	4.04	100.00	7232

number of sample villages : 1338

TABLE (16.02) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Other than Community Project Areas : All India														
category of household	average annual income per household (Rs.) from						percentage of annual income by source							number of sample house-holds
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
1. casual														
(1) with land	78.34	232.39	50.09	11.27	13.98	386.07	20.29	60.20	12.97	2.29	3.62	100.00	4024	
(2) without land	—	250.85	46.03	10.33	16.64	323.85	—	77.46	14.21	3.19	5.14	100.00	5902	
(3) all casual	32.30	243.25	47.89	10.72	15.54	349.70	9.24	69.56	13.69	3.07	4.44	100.00	9926	
2. attached														
(1) with land	69.12	316.08	43.82	11.07	11.10	451.19	15.32	70.06	9.71	2.45	2.46	100.00	1557	
(2) without land	—	421.28	36.46	7.80	14.18	479.72	—	87.81	7.60	1.63	2.96	100.00	2005	
(3) all attached	31.43	373.45	39.71	9.28	12.78	466.65	6.74	80.02	8.51	1.99	2.74	100.00	3562	
3. all households	32.07	277.83	45.65	10.34	14.81	380.70	8.42	72.98	11.99	2.72	3.89	100.00	13488	

number of sample villages : 2350

TABLE (16.1) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSING														Central Zone
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
1. casual														
(1) with land	90.41	173.58	51.91	16.03	11.75	343.68	26.31	50.51	15.10	4.66	3.42	100.00	1602	
(2) without land	—	224.59	46.64	15.66	15.44	302.33	—	74.29	15.43	5.18	5.10	100.00	2043	
(3) all casual	40.17	201.94	48.92	15.82	13.80	320.65	12.53	62.98	15.26	4.93	4.30	100.00	3645	
2. attached														
(1) with land	86.75	253.04	49.92	18.44	18.12	426.27	20.35	59.36	11.71	4.33	4.25	100.00	1059	
(2) without land	—	344.25	27.35	10.50	5.82	387.92	—	88.74	7.05	2.71	1.50	100.00	869	
(3) all attached	47.41	294.40	39.45	14.84	12.54	408.64	11.60	72.04	9.65	3.63	3.08	100.00	1928	
3. all households	42.83	235.86	45.39	15.46	13.34	352.88	12.14	66.84	12.86	4.38	3.78	100.00	5573	

number of sample villages : 952

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (16.11): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Uttar Pradesh

category of household	average annual income per household (Rs.) from						percentage of annual income by source						number of sample households	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)
1. casual														
(1) with land		82.50	168.30	55.98	17.96	15.94	340.68	24.22	49.40	16.43	5.27	4.68	100.00	1179
(2) without land		—	214.19	53.86	20.96	21.45	310.46	—	68.99	17.35	6.75	6.91	100.00	1325
(3) all casual		38.36	192.84	54.85	19.57	18.89	324.51	11.82	59.43	16.90	6.03	5.82	100.00	2504
2. attached														
(1) with land		87.93	233.54	51.71	23.63	24.35	421.16	20.88	55.45	12.28	5.61	5.78	100.00	842
(2) without land		—	324.93	29.04	18.47	9.34	381.78	—	85.10	7.61	4.84	2.45	100.00	405
(3) all attached		60.17	262.39	45.08	22.00	19.61	409.25	14.70	64.11	11.02	5.38	4.79	100.00	1247
3. all households		46.15	217.68	51.32	20.44	19.15	354.74	13.01	61.36	14.47	5.76	5.40	100.00	3751

number of sample villages : 624

TABLE (16.12): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Madhya Pradesh

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. <i>casual</i>													
(1) with land	104.38	182.91	45.24	12.63	4.36	349.52	29.86	52.34	12.94	3.61	1.25	100.00	423
(2) without land	—	239.44	35.90	8.10	6.86	290.30	—	82.48	12.37	2.79	2.36	100.00	718
(3) all casual	43.02	216.14	39.63	9.97	5.83	314.59	13.67	68.71	12.60	3.17	1.85	100.00	1141
2. <i>attached</i>													
(1) with land	83.55	306.45	44.75	4.21	1.03	439.99	18.99	69.65	10.17	0.96	0.23	100.00	217
(2) without land	—	357.50	26.18	5.03	3.41	392.12	—	91.17	6.68	1.28	0.87	100.00	464
(3) all attached	29.41	339.53	31.30	4.74	2.57	407.55	7.22	83.31	7.68	1.16	0.63	100.00	681
3. all households	37.82	263.25	37.24	7.97	4.58	350.86	10.78	75.03	10.61	2.27	1.31	100.00	1822

number of sample villages : 328

TABLE (16.2) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

category of household	average annual income per household (Rs.) from							percentage of annual income by source							number of sample households
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
1. casual															
(1) with land		76.89	247.36	65.34	10.69	14.58	414.86	18.53	59.62	15.75	2.58	3.52	100.00	1662	
(2) without land		—	283.01	83.62	8.80	16.54	391.97	—	72.20	21.33	2.25	4.22	100.00	1860	
(3) all casual		38.24	265.29	74.80	9.74	15.56	403.63	9.47	65.73	18.53	2.41	3.86	100.00	3522	
2. attached															
(1) with land		68.55	337.26	48.35	7.35	5.29	466.80	14.69	72.25	10.36	1.57	1.13	100.00	853	
(2) without land		—	375.51	61.49	4.82	17.72	459.54	—	81.71	13.38	1.05	3.86	100.00	839	
(3) all attached		37.47	354.59	54.55	6.21	10.93	463.75	8.08	76.46	11.76	1.34	2.36	100.00	1692	
3. all households		37.98	295.69	67.48	8.54	13.98	423.67	8.96	69.79	15.93	2.02	3.30	100.00	5214	

Eastern Zone

number of sample villages : 904

TABLE (16.21) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Bihar													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. casual													
(.1) with land	69.81	250.36	50.86	12.62	11.91	395.56	17.65	63.29	12.86	3.19	3.01	100.00	764
(.2) without land	—	286.34	50.82	5.06	11.73	353.95	—	80.90	14.36	1.43	3.31	100.00	484
(.3) all casual	40.61	265.41	50.85	9.45	11.84	378.16	10.74	70.18	13.45	2.50	3.13	100.00	1248
2. attached													
(.1) with land	60.43	299.40	46.97	6.60	3.66	417.06	14.49	71.79	11.26	1.58	0.88	100.00	630
(.2) without land	—	213.51	76.28	5.26	27.62	321.67	—	66.06	23.71	1.64	8.59	100.00	312
(.3) all attached	39.14	268.79	57.61	6.13	12.10	383.77	10.20	70.04	15.01	1.60	3.15	100.00	942
3. all households													
	39.94	266.95	53.64	7.94	11.96	380.43	10.50	70.17	14.10	2.09	3.14	100.00	2190
number of sample villages : 373													

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (16.22): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

West Bengal														
category of household	average annual income per household (Rs.) from						percentage of annual income by source							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. casual														
(.1) with land		100.63	334.93	125.39	6.47	28.79	536.21	16.88	56.17	21.03	1.09	4.83	10.000	425
(.2) without land		—	324.09	124.42	8.56	22.81	479.88	—	67.54	25.93	1.78	4.75	100.00	813
(.3) all casual		33.96	327.75	124.75	7.85	24.83	519.14	6.54	63.14	24.03	1.51	4.78	100.00	1238
2. attached														
(.1) with land		158.31	530.72	61.66	8.46	26.44	785.59	20.15	67.55	7.89	1.08	3.37	100.00	84
(.2) without land		—	585.64	68.40	3.79	3.81	661.64	—	88.51	10.34	0.57	0.58	100.00	204
(.3) all attached		49.70	568.40	65.62	5.26	10.91	699.89	7.10	81.21	9.38	0.75	1.56	100.00	288
3. all households		36.38	364.75	115.78	7.46	22.69	547.06	6.65	66.68	21.16	1.36	4.15	100.00	1526

number of sample villages : 251

TABLE (16.23): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

category of household	Orissa													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. casual														
(1) with land		69.42	170.94	52.38	11.15	7.03	310.92	22.33	54.97	16.85	3.59	2.26	100.00	409
(2) without land		—	165.96	53.35	16.20	9.43	244.94	—	67.76	21.78	6.61	3.85	100.00	381
(3) all casual		38.98	168.75	52.65	13.37	8.08	281.83	13.83	59.88	18.68	4.74	2.87	100.00	790
2. attached														
(1) with land		50.61	268.12	43.19	18.07	6.08	386.07	13.11	69.45	11.19	4.68	1.57	100.00	91
(2) without land		—	302.53	30.05	9.46	2.09	344.13	—	87.91	8.73	2.75	0.61	100.00	129
(3) all attached		20.18	288.82	35.61	12.89	3.68	361.18	5.59	79.96	9.86	3.57	1.02	100.00	220
3. all households		35.39	191.70	48.89	13.27	7.24	296.49	11.94	64.65	16.49	4.48	2.44	100.00	1010

number of sample villages : 144

TABLE (16.24) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Assam, Manipur and Tripura

category of household	average annual income per household (Rs.) from						percentage of annual income by source							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. casual														
(.1) with land		116.12	376.35	43.21	0.40	41.98	578.06	20.09	65.11	7.47	0.07	7.26	100.00	64
(.2) without land		—	469.06	154.87	4.12	34.45	662.50	—	70.80	23.38	0.62	5.20	100.00	182
(.3) all casual		39.43	437.58	116.42	2.85	37.01	633.29	6.23	69.10	18.38	0.45	5.84	100.00	246
2. attached														
(.1) with land		126.68	848.91	55.23	—	5.66	1036.48	12.22	81.90	5.33	—	0.55	100.00	48
(.2) without land		—	775.19	34.42	0.04	13.35	823.00	—	94.20	4.18	0.00	1.62	100.00	194
(.3) all attached		33.73	794.82	40.45	0.03	11.30	880.33	3.83	90.29	4.60	0.00	1.28	100.00	242
3. all households		36.11	646.02	72.18	1.20	22.01	777.52	4.64	83.09	9.29	0.15	2.83	100.00	488

number of sample villages : 136

TABLE (16.3) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

SOUTHERN ZONE													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. casual													
(1) with land	52.66	227.38	38.77	11.65	13.49	343.95	15.31	66.11	11.27	3.39	3.92	100.00	1435
(2) without land	—	232.86	28.88	8.00	15.34	285.08	—	81.68	10.13	2.81	5.38	100.00	2293
(3) all casual	19.91	230.79	32.15	9.38	14.64	306.87	6.49	75.20	10.48	3.06	4.77	100.00	3228
2. attached													
(1) with land	39.20	317.40	24.18	5.62	6.04	392.44	9.99	80.88	6.16	1.43	1.54	100.00	187
(2) without land	—	407.16	18.78	4.85	4.92	435.71	—	93.54	4.31	1.11	1.13	100.00	486
(3) all attached	11.22	381.48	20.04	5.07	5.24	423.05	2.65	90.17	4.74	1.20	1.24	100.00	673
3. all households	18.55	254.40	30.26	8.70	13.17	325.08	5.70	78.26	9.31	2.68	4.05	100.00	4401
number of sample villages : 661													

number of sample villages : 661

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (16.31): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Andhra Pradesh

category of household	average annual income per household (Rs.) from				percentage of annual income by source								number of sample households
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. <i>casual</i>													
(1) with land	64.06	233.46	41.72	16.72	14.60	370.56	17.29	63.00	11.26	4.15	3.94	100.00	578
(2) without land	—	261.06	27.29	9.45	13.76	311.56	—	83.79	8.76	3.03	4.42	100.00	1078
(3) all casual	21.75	251.69	32.15	11.92	14.05	331.56	6.56	75.90	9.70	3.60	4.24	100.00	1656
2. <i>attached</i>													
(1) with land	43.01	371.00	25.88	3.41	6.37	449.67	9.56	82.50	5.76	0.76	1.42	100.00	111
(2) without land	—	456.14	15.42	7.16	4.05	482.77	—	94.49	3.19	1.48	0.84	100.00	274
(3) all attached	12.22	431.96	17.49	6.09	4.71	472.47	2.59	91.42	3.70	1.29	1.00	100.00	385
3. all households	20.16	281.89	29.61	10.94	12.48	355.08	5.68	79.39	8.34	3.08	3.51	100.00	2041

number of sample villages : 295

TABLE (16.32): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

Madras

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. <i>casual</i>													
(1) with land	42.01	194.55	33.14	5.17	11.02	285.89	14.69	68.06	11.59	1.81	3.85	100.00	473
(2) without land	—	186.63	29.84	4.65	14.32	235.44	—	79.27	12.67	1.98	6.08	100.00	943
(3) all casual	14.91	189.44	31.35	4.83	13.15	253.68	5.88	74.68	12.36	1.90	5.18	100.00	1416
2. <i>attached</i>													
(1) with land	34.49	232.57	17.01	8.76	1.93	294.76	11.70	78.91	5.77	2.97	0.65	100.00	55
(2) without land	—	362.85	21.42	1.35	5.71	391.33	—	92.73	5.47	0.34	1.46	100.00	155
(3) all attached	9.97	325.20	20.35	3.49	4.62	365.63	2.74	89.43	5.60	0.96	1.27	100.00	210
3. all households	14.17	209.82	28.76	4.63	11.87	269.25	5.26	77.93	10.68	1.72	4.41	100.00	1626

number of sample villages : 242

TABLE (16.33) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

category of household	average annual income per household (Rs.) from							percentage of annual income by source							number of sample house-holds
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
1. casual															
(.1) with land		49.63	280.33	41.78	13.81	16.09	401.64	12.36	69.79	10.40	3.44	4.01	100.00	384	
(.2) without land		—	311.35	30.28	17.46	31.11	390.20	—	79.80	7.76	4.47	7.97	100.00	272	
(.3) all casual		30.01	292.59	37.43	15.26	22.03	397.32	7.55	73.65	9.42	3.84	5.54	100.00	656	
2. attached															
(.1) with land		39.06	387.03	9.49	4.09	20.43	460.10	8.49	84.12	2.06	0.89	4.44	100.00	21	
(.2) without land		—	337.67	67.37	6.89	6.15	418.08	—	80.77	16.11	1.65	1.47	100.00	57	
(.3) all attached		11.12	351.72	46.79	6.09	10.22	425.94	2.61	82.57	10.99	1.43	2.40	100.00	78	
3. all households		27.43	300.67	38.78	14.00	20.42	401.30	6.84	74.92	9.66	3.49	5.09	100.00	734	
Kerala															

number of sample villages : 124

TABLE (16.4) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Western Zone	
												(13)	(14)
1. casual													
(.1) with land	116.82	271.52	41.44	9.99	21.89	461.66	25.30	58.82	8.98	2.16	4.74	100.00	1035
(.2) without land	—	289.33	34.77	10.83	19.86	354.79	—	81.55	9.80	3.05	5.60	100.00	2215
(.3) all casual	36.98	283.70	36.93	10.56	20.50	388.67	9.51	73.00	9.50	2.72	5.27	100.00	3250
2. attached													
(.1) with land	106.75	434.66	50.73	4.69	14.98	611.81	17.44	71.05	8.29	0.77	2.45	100.00	111
(.2) without land	—	448.88	26.54	7.37	5.26	488.05	—	91.97	5.44	1.51	1.08	100.00	440
(.3) all attached	19.82	446.23	29.46	6.88	7.07	509.46	3.89	87.59	5.78	1.35	1.39	100.00	557
3. all households	34.16	310.41	36.05	9.96	18.29	408.87	8.35	75.92	8.82	2.44	4.47	100.00	3801
number of sample villages : 595													

number of sample villages : 595

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (16.41) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD 1

Bombay

category of household	average annual income per household (Rs.) from						percentage of annual income by source							number of sample house-holds
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
1. <i>casual</i>														
(1) with land	110.14	266.90	43.45	12.06	22.91	455.46	24.18	58.60	9.54	2.65	5.03	100.00	622	
(2) without land	—	300.78	36.28	10.98	18.66	366.70	—	82.03	9.89	2.99	5.09	100.00	1503	
(3) all casual	32.26	290.86	38.15	11.29	19.90	392.46	8.22	74.11	9.72	2.88	5.07	100.00	2125	
2. <i>attached</i>														
(1) with land	129.29	496.69	53.42	2.69	15.29	697.38	18.54	71.22	7.66	0.39	2.19	100.00	78	
(2) without land	—	468.25	17.03	5.13	4.62	495.03	—	94.59	3.44	1.04	0.93	100.00	340	
(3) all attached	22.67	473.23	22.02	4.70	6.49	529.11	4.28	89.44	4.16	0.89	1.23	100.00	418	
3. all households	30.47	325.01	35.12	10.06	17.39	418.05	7.29	77.74	8.40	2.41	4.16	100.00	2543	

number of sample villages : 412

TABLE (16.42) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD														Mysore
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
1. <i>casual</i>														
(1) with land	127.17	278.72	38.85	6.78	20.30	471.82	26.95	59.08	8.23	1.44	4.30	100.00	413	
(2) without land	—	265.03	32.67	10.52	22.40	330.62	—	80.16	9.88	3.18	6.78	100.00	712	
(3) all casual	46.01	269.99	34.62	9.17	21.64	381.43	12.06	70.79	9.08	2.40	5.67	100.00	1125	
2. <i>attached</i>														
(1) with land	46.76	269.53	42.16	10.02	14.15	382.62	12.22	70.44	11.02	2.62	3.70	100.00	33	
(2) without land	—	380.36	58.70	15.31	7.53	461.90	—	82.35	12.71	3.31	1.63	100.00	100	
(3) all attached	10.30	355.96	54.51	14.14	8.98	443.89	2.32	80.19	12.28	3.19	2.02	100.00	133	
3. all households	41.85	280.00	37.96	9.75	20.17	398.73	10.74	71.84	9.74	2.50	5.18	100.00	1258	
number of sample villages : 183														

number of sample villages : 183

TABLE (16.5): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

category of household	average annual income per household (Rs.) from							percentage of annual income by source							number of sample households
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
														culti- vation of land	
1. casual															
(1) with land	85.88		232.30	63.39	17.50	14.30	413.37	20.78	56.20	15.33	4.23	3.46	100.00	284	
(2) without land	—		373.40	61.85	17.18	30.35	482.78	—	77.34	12.81	3.56	6.29	100.00	726	
(3) all casual	18.93		342.31	62.25	17.25	26.81	467.55	4.05	73.21	13.32	3.69	5.73	100.00	1010	
2. attached															
(1) with land	110.08		738.59	37.63	26.45	70.02	982.77	11.20	75.16	3.83	2.69	7.12	100.00	161	
(2) without land	—		719.66	25.60	26.19	55.45	826.90	—	37.02	3.10	3.17	6.71	100.00	560	
(3) all attached	14.56		722.16	29.32	26.22	57.38	649.64	1.71	85.00	3.45	3.09	6.75	100.00	721	
3. all households	17.20		492.29	49.75	20.80	38.88	618.92	2.78	79.54	8.04	62.8	6.28	100.00	1731	

Northern Zone

number of sample villages : 576

TABLE (16.51): AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Rajasthan	
												(13)	(14)
1. casual													
(.1) with land	61.11	205.92	50.35	8.46	9.20	335.04	18.24	61.45	15.03	2.53	2.75	100.00	203
(.2) without land	—	229.95	57.93	11.76	4.99	304.63	—	75.48	19.02	3.86	1.64	100.00	268
(.3) all casual	22.87	220.95	56.80	10.52	6.57	317.71	7.20	69.54	17.88	3.31	2.07	100.00	471
2. attached													
(.1) with land	34.64	293.84	95.22	1.99	—	425.69	8.14	69.02	22.37	0.47	—	100.00	33
(.2) without land	—	454.59	45.18	2.44	0.92	503.13	—	90.36	8.98	0.48	0.18	100.00	79
(.3) all attached	9.39	411.00	59.17	2.32	0.67	482.55	1.95	85.17	12.26	0.48	0.14	100.00	112
3. all households	20.74	250.84	57.08	9.23	5.64	343.63	6.04	73.02	16.61	2.69	1.64	100.00	583
number of sample villages : 192													

number of sample villages : 192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (16.52) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD
Punjab, Delhi and Himachal Pradesh

category of household	average annual income per household (Rs.) from						percentage of annual income by source							number of sample households
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
1. <i>casual</i>														
(1) with land		146.06	293.48	89.48	39.44	26.79	595.25	24.54	49.30	15.03	6.63	4.50	100.00	70
(2) without land		—	447.62	63.88	20.03	43.31	574.84	—	77.88	11.11	3.48	7.53	100.00	442
(3) all casual		16.16	430.57	67.12	22.17	41.48	577.50	2.80	74.56	11.62	3.84	7.18	100.00	512
2. <i>attached</i>														
(1) with land		138.26	907.83	4.55	34.73	98.13	1183.50	11.68	76.72	0.38	2.93	8.29	100.00	65
(2) without land		—	755.40	27.26	29.11	62.25	874.02	—	86.43	3.12	3.33	7.12	100.00	409
(3) all attached		15.00	771.94	24.55	29.72	66.14	907.35	1.65	85.07	2.71	3.28	7.29	100.00	474
3. all households		15.59	598.91	46.89	25.90	53.64	740.93	2.10	80.83	6.33	3.50	7.24	100.00	986

number of sample villages : 192

TABLE (16.53) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE AND CATEGORY OF HOUSEHOLD														Jammu and Kashmir	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
1. <i>casual</i>															
(1) with land	68.00	512.17	—	13.75	—	593.92	11.45	86.23	—	2.32	—	100.00	11		
(2) without land	—	61.32	—	—	—	61.32	—	100.00	—	—	—	100.00	16		
(3) all casual	10.95	133.95	—	2.21	—	147.11	7.44	91.06	—	1.50	—	100.00	27		
2. <i>attached</i>															
(1) with land	75.47	486.05	103.30	28.61	7.14	700.57	10.77	69.38	14.75	4.08	1.02	100.00	63		
(2) without land	—	229.22	33.03	5.47	1.05	268.77	—	85.28	12.29	2.04	0.39	100.00	72		
(3) all attached	29.63	330.07	60.37	14.56	3.44	438.07	6.76	75.35	13.78	3.32	0.79	100.00	135		
3. all households	24.39	275.03	43.64	11.10	2.47	356.63	6.84	77.12	12.24	3.11	0.69	100.00	162		

number of sample villages : 192

TABLE (17.0) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

All India												
category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per household (Rs.)	average debt per household (Rs.)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
1. casual												
(1) with land	29.86	4.88	2.38	71.85	5.01	2.44	111.81	155.62				
(2) without land	43.62	3.91	1.99	56.75	4.16	2.04	61.27	107.96				
(3) all casual	73.48	4.30	2.15	62.89	4.55	2.23	81.81	130.08				
2. attached												
(1) with land	11.78	5.13	2.46	73.92	5.24	2.50	115.92	156.82				
(2) without land	14.74	4.31	2.26	64.85	4.58	2.31	103.96	160.31				
(3) all attached	26.52	4.67	2.35	68.88	4.89	2.40	109.27	158.64				
3. all households	100.00	4.40	2.20	64.47	4.65	2.28	89.09	138.18				
distribution of debt (Rs.) per indebted household by												
category of household	purpose				source				number of sample house- holds			
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders		co-opera- tive societies	others	not recorded
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. casual												
(1) with land	34.98	63.78	38.80	17.68	0.38	10.07	6.39	55.57	2.76	80.22	0.61	6018
(2) without land	12.47	48.39	28.00	18.76	0.34	9.08	5.59	39.32	1.86	51.76	0.35	9137
(3) all casual	22.92	55.53	33.01	18.26	0.36	9.54	5.96	46.86	2.28	64.97	0.47	15155
2. attached												
(1) with land	16.96	69.77	52.78	17.17	0.14	53.93	3.89	50.11	2.12	46.26	0.51	2371
(2) without land	7.35	73.40	45.51	38.38	0.17	63.72	5.98	43.64	1.12	45.64	0.21	3194
(3) all attached	11.93	71.66	48.97	25.92	0.16	59.05	4.99	46.72	1.60	45.93	0.35	5565
3. all households	19.81	60.11	37.53	20.43	0.30	23.57	5.69	46.82	2.09	59.57	0.44	20720
number of sample villages : 3688												

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (17.01): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

[illegible]

TABLE (17.02): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Other than Community Project Areas—All India												
category of households	(1)	(2)	(3)	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)		
1. casual												
(1) with land		30.28	4.87	2.35	70.45	2.41	5.00	112.73	160.03			
(2) without land		43.15	3.90	1.97	56.32	2.01	4.14	58.41	103.70			
(3) all casual		73.34	4.30	2.13	62.15	2.20	4.54	80.81	130.03			
2. attached												
(1) with land		12.08	5.12	2.42	71.90	2.47	5.23	108.79	151.30			
(2) without land		14.49	4.31	2.27	64.05	2.34	4.60	103.63	161.81			
(3) all attached		26.57	4.68	2.34	67.62	2.40	4.91	105.98	156.73			
3. all households		100.00	4.40	2.18	63.60	2.26	4.65	87.50	137.57			
distribution of debt (rupees) per indebted household by												
category of household	purpose					source					number of sample house- holds	
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	co-opera- tive societies	others not recorded		
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. casual												
(1) with land	35.15	68.25	40.57	15.58	0.48	9.49	6.69	59.54	2.52	80.90	0.89	4024
(2) without land	12.84	49.35	28.35	12.94	0.22	9.52	5.25	34.86	1.64	51.98	0.45	5902
(3) all casual	23.27	58.18	34.06	14.18	0.34	9.51	5.92	46.40	2.05	65.50	0.65	9926
2. attached												
(1) with land	13.89	63.76	60.04	13.40	0.21	53.26	3.66	49.52	1.82	42.80	0.24	1557
(2) without land	6.66	74.79	47.33	32.97	0.06	52.47	5.93	53.13	1.27	48.89	0.12	2005
(3) all attached	10.15	69.46	53.48	23.51	0.13	52.85	4.83	51.39	1.53	45.95	0.18	3562
3. all households	19.57	61.37	39.54	16.81	0.28	21.75	5.61	47.81	1.91	59.97	0.52	13488

number of sample villages: 2350

TABLE (17.1): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

TABLE (17.1): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD											Central Zone	
category of household	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
1. <i>casual</i>												
(1) with land		28.13	4.78	2.48	69.33	5.01	2.53	84.46	121.81			
(2) without land		35.18	3.75	1.95	52.69	4.20	2.09	64.33	122.08			
(3) all casual		63.31	4.21	2.19	60.90	4.61	2.31	73.28	121.95			
2. <i>attached</i>												
(1) with land		20.05	5.13	2.73	74.27	5.30	2.81	103.32	139.13			
(2) without land		16.64	4.03	2.28	60.39	4.33	2.38	105.25	174.29			
(3) all attached		36.69	4.63	2.53	67.97	4.91	2.63	104.19	153.30			
3. all households		100.00	4.37	2.31	62.98	4.73	2.44	84.62	134.36			
distribution of debt (Rs.) per indebted household by												
category of household	purpose					source					number of sample households	
	produc- tion	consum- tion	social	others	not recorded	em- ployers	shop keepers	money lenders	co-opera- tive societies	others not recorded		
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. <i>casual</i>												
(1) with land	20.74	43.14	41.01	16.86	0.06	5.68	5.39	66.02	2.62	41.87	0.23	1602
(2) without land	14.75	43.48	46.62	16.93	0.30	12.76	6.81	51.13	1.71	49.31	0.36	2043
(3) all casual	17.82	43.30	34.75	16.90	0.18	9.13	6.08	58.77	2.18	45.50	0.29	3645
2. <i>attached</i>												
(1) with land	15.10	56.63	51.20	16.20	—	39.91	3.60	62.02	2.74	30.78	0.68	1059
(2) without land	13.46	58.15	63.93	38.12	0.63	66.30	5.01	48.81	1.41	52.10	0.63	869
(3) all attached	14.44	57.25	56.33	25.03	0.25	50.19	4.17	56.70	2.21	39.37	0.66	1928
3. all households	16.48	48.82	48.73	20.12	0.21	25.39	5.32	57.95	2.19	43.07	0.44	5573
number of sample villages : 952												

number of sample villages : 952

TABLE (17.11): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLDS

Uttar Pradesh							
category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. casual							
(1) with land	29.89	4.85	2.35	77.46	5.01	2.40	139.87
(2) without land	34.40	3.90	1.79	64.06	4.22	1.91	134.32
(3) all casual	64.29	4.34	2.05	70.29	4.62	2.16	137.16
2. attached							
(1) with land	24.44	5.23	2.71	78.23	5.38	2.75	157.05
(2) without land	11.27	4.13	2.12	69.06	4.52	2.34	220.35
(3) all attached	35.71	4.88	2.53	75.34	5.13	2.63	175.37
3. all households	100.00	4.54	2.22	72.09	4.81	2.33	151.42

distribution of debt (Rs.) per indebted household by

category of household	purpose					source					number of sample households	
	production	consumption	social	other-	not recorded	em- employers	shop- keepers	money lenders	co-opera- tive societies	others		not recorded
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. casual												
(.1) with land	23.33	48.14	46.88	21.52	—	5.60	3.32	83.18	2.93	44.51	0.33	1179
(.2) without land	16.64	48.99	47.00	21.42	0.27	5.68	5.92	65.33	1.98	54.91	0.50	1325
(.3) all casual	20.06	48.56	46.94	21.47	0.13	5.64	4.58	74.48	2.47	49.58	0.41	2504
2. attached												
(.1) with land	15.35	66.27	55.71	19.72	—	39.94	2.78	76.41	3.48	33.56	0.88	842
(.2) without land	24.27	64.21	80.98	50.03	0.86	71.02	2.25	66.87	1.76	77.59	0.86	405
(.3) all attached	17.93	65.67	63.03	28.49	0.25	48.93	2.63	73.66	2.98	46.30	0.87	1247
3. all households	19.27	54.94	52.94	24.09	0.18	21.80	3.85	74.17	2.66	48.36	0.58	3751
number of sample villages : 624												

number of sample villages : 624

TABLE (17.12): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Madhya Pradesh

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
1. casual												
(.1) with land	25.48	4.67	2.73	54.98	5.01	2.85	42.26	76.87				
(.2) without land	36.36	3.54	2.19	36.48	4.16	2.65	33.38	91.48				
(.3) all casual	61.84	4.01	2.41	44.11	4.59	2.70	37.04	83.97				
2. attached												
(.1) with land	13.43	4.87	2.79	63.41	5.02	2.99	49.79	78.52				
(.2) without land	24.73	3.96	2.39	54.43	4.17	2.41	73.04	134.18				
(.3) all attached	38.16	4.28	2.53	57.59	4.50	2.64	64.85	112.61				
3. all households	100.00	4.11	2.46	49.25	4.55	2.67	47.65	96.75				
distribution of debt (Rs.) per indebted household by												
category of household	purpose				source				number of sample house- holds			
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders		co-opera- tive societies	others not recorded	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. casual												
(.1) with land	14.32	30.69	26.39	5.25	0.22	5.89	10.55	23.28	1.84	35.31	—	423
(.2) without land	10.02	29.69	45.69	5.70	0.38	30.47	9.06	15.58	1.04	35.33	—	718
(.3) all casual	12.23	30.20	35.77	5.47	0.30	17.84	9.82	19.54	1.45	35.32	—	1141
2. attached												
(.1) with land	14.27	24.03	35.93	4.29	—	37.20	6.36	13.39	0.22	21.35	—	217
(.2) without land	4.05	52.88	49.07	27.75	0.43	62.18	7.41	33.08	1.17	29.91	0.43	464
(.3) all attached	8.01	41.70	43.98	18.66	0.26	52.51	7.00	25.45	0.80	26.59	0.26	681
3. all households	10.35	35.33	39.43	11.36	0.28	33.32	8.56	22.17	1.16	31.42	0.12	1822

number of sample villages : 328

TABLE (17.2): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

TABLE (17.2): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD											Eastern Zone	
category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
1. casual												
(.1) with land	32.80	5.00	2.07	70.41	5.07	2.12	80.41	114.20				
(.2) without land	33.14	4.10	1.66	56.51	4.25	1.61	40.81	72.21				
(.3) all casual	65.94	4.54	1.86	63.42	4.70	1.89	60.50	95.39				
2. attached												
(.1) with land	18.62	5.21	2.16	73.29	5.29	2.18	113.73	155.18				
(.2) without land	15.44	4.33	1.96	64.57	4.59	1.95	81.31	125.92				
(.3) all attached	34.06	4.81	2.07	69.34	5.00	2.08	93.03	142.82				
3. all households	100.00	4.64	1.93	65.44	4.81	1.96	73.62	112.51				
distribution of debt (Rs.) per indebted household by												
category of household	purpose			source						number of sample house- holds		
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	co-opera- tive societies		others	not recorded
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. casual												
(.1) with land	9.13	64.56	28.08	12.43	—	14.26	1.99	44.82	1.07	52.02	0.04	1662
(.2) without land	2.94	49.30	8.87	10.82	0.28	7.76	2.71	29.16	0.35	31.95	0.28	1860
(.3) all casual	6.36	57.72	19.48	11.71	0.12	11.35	2.31	37.80	0.75	43.03	0.15	3622
2. attached												
(.1) with land	10.08	79.17	55.26	10.67	—	62.91	0.44	47.07	0.58	43.88	0.30	853
(.2) without land	2.85	77.51	26.00	19.49	0.07	43.39	0.85	59.76	0.07	21.67	0.18	839
(.3) all attached	7.03	78.47	42.90	14.39	0.03	54.67	0.62	52.41	0.37	34.50	0.25	1692
3. all households	6.60	65.21	27.93	12.68	0.09	26.98	1.70	43.08	0.61	39.96	0.18	5214

number of sample villages : 904

TABLE (17.21): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

category of household	Bihar								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted household	average number of earners per indebted households	average debt per household (Rs.)	average debt per indebted household (Rs.)
1. <i>casual</i>									
(1) with land		31.71	5.23	2.07	68.97	5.27	2.07	107.06	155.23
(2) without land		22.80	4.42	1.75	54.08	4.56	1.68	61.54	113.80
(3) all casual		54.51	4.89	1.94	62.74	5.01	1.93	88.02	140.29
2. <i>attached</i>									
(1) with land		29.46	5.28	2.14	76.20	5.39	2.18	127.68	167.55
(2) without land		16.03	4.67	1.88	81.60	4.85	1.91	119.44	146.38
(3) all attached		45.49	5.06	2.04	78.10	5.19	2.08	124.78	159.76
3. all households		100.00	2.97	1.99	69.73	5.10	2.01	104.74	150.21
distribution of debt (Rs.) per indebted household by									
category of household	purpose				source				number of sample house- holds
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop keepers	money lenders	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
									(19)
									(20)
									(21)
1. <i>casual</i>									
(1) with land	10.78	82.87	43.30	18.28	—	24.86	1.21	56.51	0.25
(2) without land	1.27	74.27	18.33	19.93	—	12.61	0.26	67.99	0.08
(3) all casual	7.35	76.76	34.30	18.88	—	20.44	0.87	60.65	0.19
2. <i>attached</i>									
(1) with land	11.12	83.04	62.13	11.26	—	66.76	0.33	52.46	0.37
(2) without land	2.57	81.34	37.40	25.07	—	48.50	0.43	78.56	0.03
(5) all attached	7.97	82.42	53.03	16.34	—	60.05	0.37	62.07	0.24
3. all households	7.67	81.12	43.84	17.58	—	40.63	0.61	61.37	0.22
									0.12

number of sample villages : 373

TABLE (17.22): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

West Bengal																					
category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)	distribution of debt (Rs.) per indebted household by												
									purpose				source			number of sample house- holds					
									produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers		money lenders	co-opera- tive societies	others	not recorded	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
1. casual																					
(.1) with land	28.56		4.84	74.04	5.00	1.82	62.31	84.16													
(.2) without land	56.06		4.11	64.76	4.30	1.48	35.38	54.62													
(.3) all casual	84.62		4.36	67.89	4.55	1.60	44.47	65.49													
2. attached																					
(.1) with land	4.83		4.74	80.51	4.83	2.02	96.25	119.54													
(.2) without land	10.55		4.31	65.16	4.45	2.01	80.40	123.38													
(.3) all attached	15.38		4.44	69.98	4.59	2.01	85.37	121.99													
3. all households	100.00		4.37	68.21	4.56	1.67	50.76	74.41													
category of household																					
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)									
1. casual																					
(.1) with land	8.29	59.52	7.02	9.33	—	5.95	5.63	24.16	1.17	47.25	—	425									
(.2) without land	4.04	2.79	1.17	6.05	0.57	6.48	4.82	6.09	0.29	36.37	0.57	813									
(.3) all casual	5.60	48.95	3.33	7.25	0.36	6.28	5.12	12.74	0.61	40.38	0.36	1238									
2. attached																					
(.1) with land	4.36	100.50	10.43	4.25	—	80.83	2.37	19.54	—	16.80	—	84									
(.2) without land	0.73	109.07	1.54	12.04	—	59.32	1.15	39.82	—	23.09	—	204									
(.3) all attached	2.04	105.97	4.75	9.23	—	67.09	1.59	32.49	—	20.82	—	288									
3. all households	5.04	57.96	3.55	7.56	0.30	15.88	4.56	15.86	0.52	37.29	0.30	1526									

number of sample villages : 251

TABLE (17.23): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

[illegible]

TABLE (17.3): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

category of household	Southern Zone								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	percent- age of households	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)
1. casual									
(1) with land	31.89		4.72	2.45	79.16	4.48	2.52	158.98	200.83
(2) without land	52.44		3.75	2.08	64.82	3.97	2.14	70.99	109.52
(3) all casual	84.33		4.12	2.22	70.24	4.34	2.30	104.26	148.43
2. attached									
(1) with land	4.48		4.71	2.75	77.58	4.77	2.75	119.46	153.99
(2) without land	11.19		4.26	2.57	73.31	2.63	2.63	71.25	97.19
(3) all attached	15.67		4.39	2.62	74.53	4.55	2.67	85.04	114.11
3. all households	100.00		4.16	2.28	70.92	4.37	2.36	101.25	142.78
distribution of debt (Rs.) per indebted household by									
category of household	purpose				source				number of sample house- holds
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1. casual									
(1) with land	65.72	72.93	39.62	21.98	0.58	9.81	7.67	54.52	3.68
(2) without land	13.14	46.97	23.38	25.76	0.27	7.08	3.26	42.63	1.17
(3) all casual	35.55	58.03	30.30	24.15	0.40	8.24	5.14	46.42	2.24
2. attached									
(1) with land	37.77	45.28	37.61	32.32	1.01	29.46	6.14	27.29	2.50
(2) without land	6.05	47.70	28.54	14.90	—	25.75	3.01	24.84	0.29
(3) all attached	15.49	46.99	31.24	20.09	0.30	26.86	3.94	25.57	0.94
3. all households	32.25	56.21	30.46	23.48	0.38	11.31	4.94	42.99	2.03
number of sample villages : 661									0.38
									4401

TABLE (17.31): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Andhra Pradesh

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)				
									(1)	(2)	(3)	(4)
1. <i>casual</i>												
(.1) with land	28.27	4.64	2.61	76.38	4.79	2.72	161.27	211.13				
(.3) without land	54.98	3.67	2.15	64.70	3.81	2.18	85.01	131.39				
(.3) all casual	83.25	4.00	2.31	68.67	4.18	2.39	110.90	161.51				
2. <i>attached</i>												
(.1) with land	4.76	4.91	3.02	71.37	4.93	2.96	119.00	166.74				
(.2) without land	11.99	4.15	2.65	67.16	4.31	2.71	94.79	141.14				
(.3) all attached	16.75	4.37	2.75	68.35	4.49	2.79	101.67	148.74				
3. all households	100.00	4.06	2.38	68.61	4.23	2.45	109.36	159.38				
distribution of debt (Rs.) per indebted household by												
category of household	purpose			source			not recorded	number of sample house- holds				
	produc- tion	consump- tion	social others	em- ployers	shop- keepers	money lenders			co-opera- tive societies	others	not recorded	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. <i>casual</i>												
(.1) with land	61.91	80.87	49.36	18.27	0.72	20.26	5.41	78.20	5.94	100.45	0.87	578
(.2) without land	9.21	52.94	28.57	40.59	0.08	10.30	3.41	69.14	1.38	46.26	0.90	1078
(.3) all casual	29.12	63.49	36.42	32.16	0.32	14.06	4.17	72.56	3.10	66.73	0.89	1656
2. <i>attached</i>												
(.1) with land	50.21	52.84	43.67	10.81	2.21	54.48	5.94	40.09	1.50	64.73	—	111
(.2) without land	9.32	75.10	32.50	24.22	—	42.42	3.80	45.55	0.62	48.75	—	274
(.3) all attached	21.45	68.49	35.82	22.32	0.66	46.00	4.44	43.93	0.88	53.49	—	385
3. all households	27.84	64.32	36.32	30.52	0.38	19.39	4.21	67.79	2.73	64.52	0.74	2041

number of sample villages : 295

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (17.32) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Madras

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)	number of sample house- holds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1. <i>casual</i>									
(1) with land	30.17	4.45	2.33	80.25	4.57	2.36	187.11	233.16	473
(2) without land	54.82	3.65	1.99	62.49	3.91	2.07	59.97	95.98	943
(3) all casual	84.99	3.93	2.11	68.79	4.18	2.19	105.10	152.78	1416
2. <i>attached</i>									
(1) with land	4.34	4.32	2.46	81.63	4.41	2.55	120.94	148.17	55
(2) without land	10.67	4.21	2.43	76.02	4.42	2.49	50.88	66.93	155
(3) all attached	15.01	4.24	2.44	77.64	4.42	2.51	71.13	91.61	210
3. all households	100.00	3.98	2.16	70.12	4.22	2.24	100.00	142.61	1626
distribution of debt (Rs.) per indebted household by									
category of household	purpose				source				number of sample house- holds
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1. <i>casual</i>									
(1) with land	90.10	81.04	40.18	21.75	0.09	3.36	2.67	44.16	2.58
(2) without land	19.47	43.68	21.27	11.02	0.54	4.18	1.12	18.86	0.94
(3) all casual	48.71	59.15	29.10	15.46	0.36	3.84	1.76	29.34	1.62
2. <i>attached</i>									
(1) with land	33.61	44.52	41.67	28.37	—	8.76	4.81	20.04	4.32
(2) without land	4.29	24.00	31.94	6.70	—	14.61	0.09	7.96	—
(3) all attached	13.20	30.23	34.90	13.28	—	12.84	1.53	11.63	1.31
3. all households	42.81	54.34	30.06	15.10	0.30	5.34	1.72	26.39	1.57
number of sample villages : 242									0.11
									1626

TABLE (17.33) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Kerala

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)	(9)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)					
1. casual												
(.1) with land	52.20	5.43	2.35	82.92	5.46	2.40	97.55	117.64				
(.2) without land	34.14	4.86	2.15	78.64	5.06	2.22	43.23	54.98				
(.3) all casual	86.34	5.20	2.27	81.23	5.31	2.33	76.08	93.66				
2. attached												
(.1) with land	3.89	5.27	2.55	91.93	5.42	2.61	115.92	126.10				
(.2) without land	9.77	5.00	2.74	92.88	5.06	2.79	34.33	36.96				
(.3) all attached	13.66	5.08	2.69	92.61	5.16	2.74	57.56	62.15				
3. all households	100.00	5.19	2.33	82.78	5.28	2.40	73.55	88.84				
distribution of debt (Rs.) per indebted household by												
category of household	purpose			source			number of sample house- holds					
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	co-opera- tive societies	others not recorded	(20)	(21)
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)		
1. casual												
(.1) with land	25.84	41.44	19.34	29.76	1.26	1.70	21.85	13.22	1.39	79.48	—	384
(.2) without land	5.71	30.28	5.55	13.44	—	3.04	12.00	9.13	1.06	29.75	—	272
(.3) all casual	18.14	37.17	14.06	23.51	0.78	2.22	18.08	11.65	1.27	60.44	—	656
2. attached												
(.1) with land	5.32	19.42	0.86	100.50	—	6.68	11.49	4.14	—	103.79	—	21
(.2) without land	—	25.22	4.05	7.69	—	1.91	9.26	4.63	—	21.16	—	57
(.3) all attached	1.50	23.58	3.15	33.92	—	3.26	9.89	4.49	—	44.51	—	78
3. all households	15.59	35.10	12.39	25.10	0.66	2.37	16.83	10.56	1.07	58.01	—	734
number of sample villages : 124												

TABLE (17.4) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

TABLE (17.4) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD											Western Zone	
category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per household (Rs.)	number of sample house- holds			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
1. <i>casual</i>												
(1) with land	26.46	5.04	2.82	63.76	5.26	2.97	109.24	171.31				
(2) without land	57.11	3.98	2.21	46.34	4.25	2.30	48.47	104.59				
(3) all casual	83.57	4.32	2.41	15.86	4.64	2.56	67.71	130.57				
2. <i>attached</i>												
(1) with land	3.05	5.09	2.98	66.94	5.31	3.12	121.38	181.33				
(2) without land	13.38	4.28	2.52	52.51	4.59	2.60	61.46	117.05				
(3) all attached	16.43	4.43	2.61	55.19	4.75	2.72	72.58	131.52				
3. all households	100.00	4.34	2.44	52.40	4.67	2.59	68.51	130.73				
distribution of debt (Rs.) per indebted household by												
category of household	purpose				source				number of sample house- holds			
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders			co-opera- tive societies	others not recorded
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. <i>casual</i>												
(1) with land	41.64	61.08	46.63	20.69	1.27	7.18	12.20	62.04	5.08	81.83	2.98	1035
(2) without land	14.81	44.52	29.46	15.13	0.67	9.27	6.86	27.83	3.68	56.90	0.05	2215
(3) all casual	25.25	50.98	36.15	17.29	0.90	8.46	8.94	41.15	4.23	66.59	1.20	3250
2. <i>attached</i>												
(1) with land	45.77	69.64	36.25	29.67	—	51.86	13.48	49.65	14.82	51.52	—	111
(2) without land	11.66	56.46	37.28	11.65	—	46.64	7.39	14.69	2.92	45.41	—	440
(3) all attached	19.34	59.43	37.05	15.70	—	47.81	8.76	22.56	5.60	46.79	—	551
3. all households	24.23	52.43	36.30	17.02	0.75	15.27	8.91	37.92	4.47	63.17	0.99	3801
number of sample villages : 595												

number of sample villages : 595

TABLE (17.42): EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Mysore

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
1. <i>Casual</i>												
(.1) with land	31.97	5.35	3.06	79.00	5.56	3.20	187.53	237.36				
(.2) without land	56.38	3.99	2.13	64.67	4.20	2.20	93.54	144.65				
(.3) all casual	88.35	4.48	2.47	69.85	4.76	2.61	127.55	182.59				
2. <i>attached</i>												
(.1) with land	2.56	4.23	2.53	80.20	4.02	2.32	159.69	199.12				
(.2) without land	9.09	4.32	2.35	66.39	4.72	2.55	77.70	117.04				
(.3) all attached	11.65	4.32	2.39	69.43	4.54	2.49	95.75	137.92				
3. all households	100.00	4.46	2.46	69.80	4.73	2.59	123.84	177.42				
distribution of debt (Rs.) per indebted household by												
category of household	purpose					source			number of sample house- holds			
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders		co-opera- tive societies	others	not recorded
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. <i>casual</i>												
(.1) with land	52.81	86.92	65.17	30.08	2.38	10.23	10.52	93.16	3.61	114.20	5.64	413
(.2) without land	20.66	58.36	38.19	27.04	0.40	14.74	5.47	43.58	6.05	74.71	0.10	712
(.3) all casual	33.82	70.05	49.23	28.28	1.21	12.90	7.54	63.87	5.05	90.86	2.37	1125
2. <i>attached</i>												
(.1) with land	20.10	45.94	55.33	77.75	—	90.37	2.35	71.42	4.07	30.91	—	33
(.2) without land	11.25	72.95	20.29	12.55	—	22.95	5.24	19.44	—	69.41	—	100
(.3) all attached	13.50	66.07	29.21	29.14	—	40.10	4.51	32.66	1.03	59.62	—	133
3. all households	31.47	69.59	46.91	28.38	1.07	16.05	7.19	60.26	4.58	87.24	2.10	1258

number of sample villages : 183

TABLE (17.5) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Northern Zone												
category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per indebted household (Rs.)	average debt per indebted household (Rs.)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
1. casual												
(1) with land	13.34	4.93	2.36	73.39	5.13	2.36	257.96	351.46				
(2) without land	47.17	4.46	1.95	67.08	4.89	2.08	173.28	258.31				
(3) all casual	60.51	4.56	2.04	68.47	4.95	2.15	191.94	280.32				
2. attached												
(1) with land	5.22	5.47	2.46	81.82	5.70	2.55	443.26	541.79				
(2) without land	34.27	5.25	2.14	81.30	5.36	2.18	376.44	463.05				
(3) all attached	39.49	5.28	2.18	81.36	5.41	2.23	385.27	473.52				
3. all households	100.00	4.85	2.10	73.56	5.15	2.18	268.28	364.70				
distribution of debt (Rs.) per indebted household by												
category of household	purpose				source				number of sample house- holds			
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders		co-opera- tive societies	others	not recorded
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. casual												
(1) with land	46.67	121.56	161.00	21.95	0.28	2.34	35.60	197.71	0.53	114.96	0.32	284
(2) without land	41.11	91.41	104.14	21.59	0.06	20.82	33.14	74.58	9.14	119.85	0.78	726
(3) all casual	42.42	98.54	117.57	21.68	0.11	16.45	33.72	103.66	7.11	118.71	0.67	1010
2. attached												
(1) with land	46.46	237.53	159.14	97.01	1.65	270.78	74.38	47.85	0.11	140.73	7.94	161
(2) without land	6.59	180.66	124.71	150.92	0.17	245.48	31.10	63.85	3.69	118.71	0.22	560
(3) all attached	11.89	188.22	129.29	143.75	0.37	248.85	36.86	61.72	3.21	121.64	1.24	721
3. all households	29.09	137.71	122.69	74.99	0.22	117.95	35.09	85.35	5.41	119.98	0.92	1731
number of sample villages : 576												

TABLE (17.51) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Rajasthan

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per household (Rs.)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1. <i>casual</i>									
(1) with land	31.52	4.91	2.47	74.29	5.13	2.53	273.60	368.28	
(2) without land	52.70	3.62	1.89	56.71	3.99	2.13	140.74	248.20	
(3) all casual	84.22	4.10	2.10	63.29	4.49	2.30	190.46	300.95	
2. <i>attached</i>									
(1) with land	4.28	3.85	2.31	71.62	4.09	2.43	189.97	265.25	
(2) without land	11.50	4.26	2.06	80.44	4.42	2.13	390.86	485.91	
(3) all attached	15.78	4.15	2.12	78.05	4.34	2.21	36.39	431.00	
3. all households	100.00	4.11	2.11	65.62	4.46	2.29	213.48	325.36	
distribution of debt (Rs.) per indebted household by									
category of household	purpose				source				number of sample house- holds
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
									(19)
									(20)
									(21)
1. <i>casual</i>									
(1) with land	35.08	121.60	184.62	26.59	0.39	0.48	39.92	216.10	0.48
(2) without land	58.43	84.52	86.69	18.56	—	7.05	31.55	119.88	0.50
(3) all casual	48.17	100.81	129.71	22.09	0.17	4.17	35.22	162.15	0.49
2. <i>attached</i>									
(1) with land	20.07	48.70	146.17	42.59	7.72	77.27	28.99	108.56	—
(2) without land	1.78	156.25	260.43	67.45	—	83.19	12.69	213.18	—
(3) all attached	6.33	129.49	232.00	61.26	1.92	81.72	16.74	187.14	—
3. all households	40.32	106.19	148.91	29.44	0.50	18.72	31.76	166.83	0.40

number of sample villages : 192

ABLE (17.53) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

Janmu and Kashmir

TABLE (17.53) : EXTENT, PURPOSES AND SOURCES OF DEBT BY CATEGORY OF HOUSEHOLD

category of household	percent- age of households	average size of households	average number of earners per household	percent- age of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	average debt per household (Rs.)	average debt per household (Rs.)			
										(1)	(2)	(3)
1. <i>casual</i>												
(1) with land	4.52	5.88	1.96	75.00	5.39	1.72	30.42	40.56				
(2) without land	23.54	4.10	1.06	42.40	3.32	1.13	26.11	61.59				
(3) all casual	28.06	4.38	1.20	47.65	3.85	1.28	26.81	56.26				
2. <i>attached</i>												
(1) with land	28.25	5.37	2.23	72.00	5.32	2.24	59.64	82.83				
(2) without land	43.69	4.89	1.64	68.10	5.01	1.67	77.93	114.43				
(3) all attached	71.94	5.08	1.87	69.63	5.14	1.90	70.75	101.60				
3. all households	100.00	4.88	1.68	63.47	4.87	1.77	58.42	92.05				
distribution of debt (Rs.) per indebted household by												
category of household	purpose					source						
	produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	co-opera- tive societies	others not recorded	number of sample house- holds	
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1. <i>casual</i>												
(1) with land	11.11	29.45	—	—	—	—	38.28	—	—	2.28	—	11
(2) without land	—	52.08	9.51	—	—	—	18.11	1.13	—	42.35	—	16
(3) all casual	2.82	46.34	7.10	—	—	—	23.23	0.85	—	32.18	—	27
2. <i>attached</i>												
(1) with land	2.78	66.76	10.19	3.10	—	3.61	43.35	0.41	2.65	32.81	—	63
(2) without land	9.49	93.23	5.51	6.20	—	9.49	33.21	—	1.96	69.77	—	72
(3) all attached	6.77	82.48	7.41	4.94	—	7.11	37.33	0.17	2.24	54.75	—	135
3. all households	5.93	74.88	7.34	3.90	—	5.16	34.36	0.31	1.77	50.00	—	162
												number of sample villages : 192

PART TWO

ALE ZONES

TABLE (0) : DISTRIBUTION OF SAMPLE VILLAGES AND SAMPLE HOUSEHOLDS

state	ALE zone number	number of sample villages	number of sample households
(1)	(2)	(3)	(4)
Uttar Pradesh	1	144	976
	2	144	982
	3	240	1454
	4	96	339
Madhya Pradesh	1	48	226
	2	48	291
	3	56	263
	4	48	245
	5	80	502
	6	48	295
Bihar	1	190	1178
	2	96	539
	3	87	473
West Bengal	1	48	265
	2	203	1261
Orissa	1	144	1010
Assam, Manipur and Tripura	1	40	135
	2	96	353
Andhra Pradesh	1	48	345
	2	144	984
	3	103	712
Madras	1	242	1626
Kerala	1	124	734
Bombay	1	96	647
	2	66	469
	3	56	375
	4	96	558
	5	50	231
	6	48	263
Mysore	1	69	488
	2	114	770
Rajasthan	1	48	145
	2	48	170
	3	48	156
	4	48	112
Punjab, Delhi and Himachal Pradesh	1	48	285
	2	144	701
Jammu and Kashmir	1	192	162

TABLE (1) : PERCENTAGE OF AGRICULTURAL LABOUR HOUSEHOLDS; PERCENTAGE DISTRIBUTION OF AGRICULTURAL LABOUR HOUSEHOLDS BY CATEGORY; AVERAGE NUMBER OF PERSONS AND AGRICULTURAL LABOURERS PER AGRICULTURAL LABOUR HOUSEHOLD

state	ALE zone number	percentage of agricultural labour households to all agricultural labour households of	percentage to all agricultural labour households of										average size of house-holds	average number of agricultural labourers per agricultural labour household				number of sample villages
			casual		attached		with out land		all land		with out land			men women child- ren		total		
			with land	with- out land	with- out land	all	with land	with- out land	men	women	child- ren							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
Uttar Pradesh	1	23.23	34.78	15.18	49.96	47.56	2.48	50.04	82.34	17.66	5.13	1.18	0.89	0.24	2.31	976	144	
	2	17.33	37.99	31.82	69.81	22.38	7.81	30.19	60.37	39.63	4.28	1.20	0.67	0.14	2.01	982	144	
	3	14.63	24.07	52.89	76.96	5.85	17.19	23.04	29.92	70.08	4.33	1.26	0.22	0.08	1.56	1454	240	
	4	13.45	17.64	34.94	52.58	23.16	24.26	47.42	40.80	59.20	4.07	1.03	0.81	0.22	2.06	339	96	
Madhya Pradesh	1	10.55	26.28	26.28	52.56	10.81	36.63	47.44	37.09	62.91	4.30	1.18	0.67	0.18	2.03	226	48	
	2	24.94	14.01	43.86	57.87	5.68	36.45	42.13	19.69	80.31	4.02	1.12	1.00	0.23	2.35	291	48	
	3	25.11	9.74	64.60	73.34	1.98	23.68	25.66	11.72	88.28	3.94	1.11	1.04	0.22	2.37	263	56	
	4	22.49	24.70	46.07	70.77	10.31	18.92	29.23	35.01	64.99	3.87	1.06	0.88	0.19	2.13	245	48	
	5	27.97	35.77	27.64	63.41	14.16	22.43	36.59	49.93	50.07	4.12	1.15	1.08	0.18	2.41	502	80	
	6	26.31	20.66	27.39	48.05	30.15	21.80	51.95	50.81	49.19	4.49	1.23	0.87	0.28	2.38	295	48	
Bihar	1	37.60	30.88	26.17	57.05	26.19	16.76	42.95	57.07	42.93	5.11	1.20	0.42	0.10	1.72	1178	190	
	2	23.84	25.64	16.05	41.69	42.69	15.62	58.31	68.33	31.67	4.93	1.18	0.87	0.11	2.16	539	96	
	3	16.80	47.35	17.11	64.46	22.69	12.85	35.54	70.04	29.96	4.30	1.06	1.85	0.12	2.03	473	87	
West Bengal	1	30.61	6.79	25.62	32.41	18.31	49.28	67.59	25.10	74.90	4.23	1.33	0.23	0.07	1.63	265	48	
	2	23.74	30.53	58.82	89.35	3.61	7.04	10.65	34.14	65.86	4.38	1.24	0.22	0.05	1.51	1261	203	
Orissa	1	30.76	45.42	35.47	80.89	7.62	11.49	19.11	53.04	46.96	4.22	1.15	0.68	0.16	1.99	1010	144	
Assam, Manipur and Tripura	1	13.46	29.11	19.80	48.91	9.67	41.42	51.09	38.78	61.22	4.03	1.10	0.86	0.19	2.15	135	40	
	2	18.23	12.13	28.54	40.67	16.33	43.00	59.33	28.46	71.54	4.20	1.11	0.49	0.11	1.71	353	96	

TABLE (1) (Contd.) : PERCENTAGE OF AGRICULTURAL LABOUR HOUSEHOLDS; PERCENTAGE DISTRIBUTION OF AGRICULTURAL LABOUR HOUSEHOLDS BY CATEGORY; AVERAGE NUMBER OF PERSONS AND AGRICULTURAL LABOURERS PER AGRICULTURAL LABOUR HOUSEHOLD

state	ALE zone number	percentage of agricultural labour households to all household	percentage to all agricultural labour households of						average size of household		average number of agricultural labourers per agricultural household					number of sample villages	
			casual		attached		with all land	with out land	with all land	with out land	men	women	child- ren	total			
			with land	with- out land	with- out land	all land											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Andhra Pradesh	1	33.49	34.08	58.18	92.26	3.28	4.46	7.74	37.36	62.64	4.21	0.96	0.95	0.20	2.11	345	48
	2	42.71	30.72	58.34	89.06	2.38	8.56	10.94	33.10	66.90	4.00	1.07	0.93	0.19	2.19	984	144
	3	28.67	20.25	45.97	66.22	10.37	23.41	33.78	30.62	69.38	4.08	1.05	1.01	0.34	2.40	712	103
Madras	1	35.60	30.17	54.82	84.99	4.34	10.67	15.01	34.51	65.49	3.98	1.04	0.85	0.14	2.03	1626	242
Kerala	1	24.87	52.20	34.14	86.34	3.89	9.77	13.66	56.09	43.91	5.19	1.15	0.80	0.04	1.99	734	124
Bombay	1	25.96	28.71	55.37	84.08	3.99	11.93	15.92	32.70	67.30	4.51	1.09	1.08	0.24	2.41	647	96
	2	37.06	14.65	68.51	83.16	1.74	15.10	16.84	16.39	83.61	4.54	1.09	1.10	0.33	2.52	469	66
	3	41.47	20.29	53.72	74.01	4.53	21.46	25.99	24.82	75.18	3.95	1.14	0.93	0.23	2.30	375	56
	4	20.22	26.29	56.17	82.46	3.66	13.88	17.54	29.95	70.05	4.32	1.13	0.81	0.11	2.05	558	96
	5	15.05	51.32	39.98	91.30	0.74	7.96	8.70	52.06	47.94	3.86	0.89	0.95	0.09	1.93	231	50
	6	9.89	6.15	74.65	80.80	1.24	17.96	19.20	7.39	92.61	4.24	1.08	0.66	0.08	1.82	263	48
Mysore	1	30.42	30.59	62.59	93.18	2.98	3.84	6.82	33.57	66.43	4.52	1.14	0.85	0.19	2.18	488	69
	2	25.82	32.94	51.96	84.90	2.28	12.82	15.10	35.22	64.78	4.42	1.00	1.02	0.18	2.20	770	114
Rajasthan	1	3.98	31.73	61.38	93.11	3.28	3.61	6.89	35.01	64.99	4.21	1.01	0.87	0.12	2.00	145	48
	2	6.74	28.96	49.41	78.37	6.08	15.55	21.63	35.04	64.96	4.08	1.01	0.88	0.12	2.01	170	48
	3	6.37	43.14	46.01	89.15	3.14	7.71	10.85	46.28	53.72	3.72	0.90	0.81	0.20	1.91	156	48
	4	6.58	12.68	51.99	64.67	3.58	31.75	35.33	16.26	83.74	4.82	1.16	0.40	0.13	1.69	112	48
Punjab, Delhi and Himachal Pradesh	1	15.12	4.05	25.74	29.79	9.66	60.55	70.21	13.71	86.29	5.13	1.31	0.22	0.20	1.73	285	48
	2	10.77	6.13	51.61	57.74	3.90	38.36	42.26	10.03	89.97	5.18	1.30	0.30	0.15	1.75	701	144
Jammu and Kashmir	1	0.95	4.52	23.54	28.06	28.25	43.69	71.94	32.77	67.23	4.88	1.41	0.03	0.06	1.50	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (2) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in					unemployed due to									number of sample persons	number of sample house-holds	number of sample villages
		wage employment			self-employment	total	want of work	own sickness	weather condition	house-hold work, cere-mentials	leave, rest, holiday	other reasons	total					
		agricul-tural	non-agricul-tural	sub-total														
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)		
Uttar Pradesh	1	128.42	24.07	152.49	55.07	207.56	53.68	9.65	3.46	15.09	2.51	73.05	157.44	2191	976	144		
	2	140.45	27.50	167.95	51.42	219.37	40.85	9.90	2.53	20.00	0.78	71.57	145.63	1902	982	144		
	3	172.31	27.57	199.88	50.78	250.66	49.29	12.14	1.97	15.99	2.77	32.18	114.34	2185	1454	240		
	4	164.74	30.90	195.64	26.51	222.15	51.61	8.95	0.40	9.32	2.10	70.47	142.85	685	339	96		
Madhya Pradesh	1	186.32	23.74	210.06	56.23	266.29	39.44	9.41	2.37	11.09	2.51	33.89	98.71	430	226	48		
	2	182.69	17.11	199.80	25.47	225.27	54.06	5.16	2.11	13.15	3.81	61.44	139.73	695	291	48		
	3	200.03	7.68	207.71	22.50	230.21	34.20	8.95	6.31	15.74	6.82	62.77	134.79	665	263	56		
	4	145.96	13.56	159.52	42.11	201.62	47.17	7.35	—	35.92	6.14	66.79	163.37	505	245	48		
	5	163.86	21.17	185.03	42.96	227.99	48.83	5.06	0.13	12.37	4.82	65.93	137.01	1217	502	80		
	6	221.83	24.67	246.50	35.41	281.91	37.79	7.40	0.13	15.91	2.29	19.57	83.09	711	295	48		
Bihar	1	176.21	23.88	200.09	27.45	227.54	87.21	7.75	3.32	6.20	1.06	31.92	137.46	2025	1178	190		
	2	144.98	18.63	163.61	26.79	190.40	82.16	14.18	5.42	10.74	4.50	57.60	175.60	1215	539	96		
	3	154.28	27.75	182.03	30.80	212.83	88.70	8.32	1.93	12.84	3.35	37.03	152.17	954	473	87		
West Bengal	1	249.18	8.98	258.16	16.13	274.29	44.36	3.27	4.34	5.60	0.70	32.44	90.71	407	265	48		
	2	174.09	55.72	229.81	24.17	253.98	76.59	8.97	2.40	7.35	1.46	14.25	111.02	1839	1261	203		
Orissa	1	139.22	27.64	166.86	41.19	208.05	52.14	8.34	1.56	34.94	3.65	56.32	156.95	1930	1010	144		
Assam, Manipur and Tripura	1	204.82	16.30	221.12	27.61	248.73	46.64	6.65	0.07	8.17	2.45	52.29	116.27	276	135	40		
	2	245.49	26.13	271.62	4.39	276.01	11.41	8.62	0.56	7.37	13.41	47.62	88.99	539	353	96		

TABLE (2) (Contd.) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in					unemployed due to							number of sample persons	number of sample households	number of sample villages
		wage employment			self-employment	total	want of work	own sickness	weather condition	household cere-moniais	leave, rest, holiday	other reasons	total			
(1)	(2)	(3)	(4)	(5)	(6)									(7)	(8)	(9)
Andhra Pradesh	1	164.78	10.27	175.05	34.00	209.05	77.83	4.69	0.52	2.14	2.21	68.56	155.95	726	345	48
	2	156.66	13.61	170.27	31.70	201.97	83.50	5.91	0.10	4.22	0.67	68.63	163.03	2137	984	144
	3	234.87	13.31	248.18	24.38	272.56	32.37	7.80	0.79	14.53	0.90	36.05	92.44	1646	712	103
Madras	1	159.04	14.60	173.64	22.94	196.58	99.07	9.39	1.56	10.43	2.61	45.36	168.42	3256	1626	242
Kerala	1	142.87	11.87	154.34	26.07	180.41	121.49	9.39	0.52	4.17	8.34	40.68	184.59	1445	734	124
Bombay	1	198.89	13.10	211.99	31.94	243.93	41.10	9.76	2.64	18.69	2.95	45.93	121.07	1530	647	96
	2	190.52	14.15	204.67	29.00	233.67	72.55	6.11	4.53	7.62	5.06	35.46	131.33	1197	469	66
	3	207.84	14.71	222.55	22.97	245.52	24.60	7.72	3.18	12.36	1.42	70.20	119.48	845	375	56
	4	178.70	16.21	194.21	22.69	217.60	75.48	9.13	3.85	16.69	3.07	39.18	147.40	1117	558	96
	5	157.38	20.63	178.01	54.71	232.72	38.07	8.99	0.60	39.62	3.43	41.58	132.28	421	231	50
	6	143.10	18.06	161.16	8.24	169.40	124.77	12.94	1.52	16.12	3.00	37.25	195.60	482	263	48
Mysore	1	210.26	11.92	222.18	23.16	245.34	60.32	11.95	0.98	11.63	4.46	30.32	119.66	1061	488	69
	2	151.97	14.88	166.85	35.58	202.43	49.69	12.27	3.30	13.86	5.94	77.51	162.57	1637	770	114
Rajasthan	1	143.36	14.70	158.06	64.41	222.47	69.92	2.40	2.31	9.04	2.32	56.54	142.53	277	145	48
	2	137.14	44.29	181.43	28.62	210.05	92.70	10.27	0.55	14.03	0.74	36.66	154.95	343	170	48
	3	187.91	23.48	211.39	25.16	236.55	28.44	7.50	7.37	8.54	3.06	73.54	128.45	293	156	48
	4	150.93	14.15	165.08	11.09	176.17	70.73	14.10	6.45	46.42	—	51.13	188.83	199	112	48
Punjab, Delhi and Himachal Pradesh	1	243.17	6.08	249.25	45.06	294.31	19.79	8.66	2.89	8.43	1.69	29.23	70.69	473	285	48
	2	205.86	16.82	222.68	41.82	264.50	44.75	11.17	1.09	11.85	2.28	29.36	100.50	1200	701	144
Jammu and Kashmir	1	190.33	30.76	221.09	9.91	231.00	25.04	—	44.31	2.09	—	62.56	134.00	253	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (3) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in				unemployed due to							number of sample persons	number of sample house-holds	number of sample villages	
		wage employment		self-employment	total	want of work	own sickness	weather condition	house-hold work, cere-montals	leave, rest, holiday	other reasons	total				
		agricul-tural	non-agricul-tural													(4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Uttar Pradesh	1	168.78	40.11	208.89	52.10	260.99	33.97	12.26	5.69	8.49	2.03	41.57	104.01	1141	976	144
	2	159.71	37.12	196.83	55.06	251.89	39.10	11.27	2.86	12.66	1.09	46.13	113.11	1160	982	144
	3	181.34	31.99	213.33	50.62	263.95	43.15	14.44	2.25	11.87	1.73	27.61	101.05	1786	1454	240
	4	195.34	45.66	241.00	24.14	265.14	33.74	9.51	0.75	10.16	1.78	43.92	99.86	340	339	96
Madhya Pradesh	1	217.62	27.32	244.94	61.31	306.25	21.03	10.23	0.92	9.05	2.59	14.93	58.75	260	226	48
	2	222.66	20.28	242.94	29.85	272.79	36.53	6.71	0.38	11.29	2.02	35.28	92.21	329	291	48
	3	221.84	13.39	235.23	23.31	258.54	29.97	8.33	3.22	13.61	5.69	45.64	106.46	313	263	56
	4	183.81	18.15	201.96	39.56	241.51	39.44	8.11	—	22.66	5.11	48.16	123.48	254	245	48
	5	209.79	26.00	235.79	44.52	280.31	21.45	5.63	—	9.80	7.68	40.13	84.69	579	502	80
	6	249.16	30.56	279.72	40.02	319.74	14.53	8.57	0.25	7.84	3.60	10.47	45.26	353	295	48
Bihar	1	195.33	30.21	225.54	23.37	248.91	70.14	8.70	2.05	4.67	1.33	29.20	116.09	1422	1178	190
	2	178.44	29.26	207.70	24.47	232.17	66.16	17.96	7.61	5.18	6.71	29.21	132.83	664	539	96
	3	179.65	35.32	214.97	40.17	255.14	53.66	9.29	2.50	8.53	2.61	33.27	109.86	503	473	87
West Bengal	1	260.55	10.48	271.03	14.31	285.34	41.87	3.76	5.34	3.71	0.75	24.23	79.66	341	265	48
	2	179.86	58.82	238.68	23.37	262.05	75.46	10.00	2.80	3.39	1.14	10.16	102.95	1552	1261	203
Orissa	1	175.48	30.95	206.43	44.21	250.64	48.70	11.12	1.68	20.51	3.04	29.31	114.36	1149	1010	144
Assam, Manipur and Tripura	1	263.74	28.81	292.55	17.04	309.59	27.36	2.56	0.14	4.39	3.37	17.59	55.41	135	135	40
	2	245.78	34.82	280.60	3.74	284.34	9.72	7.87	0.87	6.21	11.82	44.17	80.66	376	353	96

TABLE (3) (Contd.) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in					unemployed due to					number of				
		wage employment		self-employment			want of work	own sickness	weather condition	house-work, domestic	leave, rest, holiday	other reasons	total	sample persons	house-holds	sample villages
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Andhra Pradesh	1	190.09	16.45	206.54	35.93	242.47	61.60	7.64	—	2.74	0.88	49.67	122.53	329	345	48
	2	189.23	19.36	208.59	37.05	245.64	70.49	6.30	0.20	2.96	0.58	38.83	119.36	1031	984	144
	3	267.29	17.20	284.49	28.15	312.64	22.46	6.78	0.46	7.49	0.81	14.36	52.36	707	712	103
Madras	1	173.25	19.65	192.90	28.97	221.87	92.12	9.23	0.99	6.64	2.11	32.04	143.13	1633	1626	242
Kerala	1	156.00	14.19	170.19	27.54	197.73	114.34	11.77	0.50	3.78	8.25	28.63	167.27	858	734	124
Bombay	1	221.76	19.02	240.78	34.13	274.91	30.69	8.10	0.81	15.45	3.60	31.44	90.09	688	647	96
	2	223.48	19.77	243.25	29.31	272.56	48.35	7.71	3.72	7.33	7.22	18.11	92.44	518	469	66
	3	239.62	24.31	263.93	26.57	290.50	16.18	9.15	2.05	9.52	0.42	37.18	74.50	416	375	56
	4	208.81	19.17	227.98	18.89	246.87	62.04	10.33	4.67	8.30	3.17	29.62	118.13	616	558	96
	5	176.94	23.72	200.66	60.46	261.12	37.71	7.45	0.27	32.48	4.34	21.63	103.88	189	231	50
	6	161.20	20.38	181.58	6.68	188.26	111.05	9.27	2.09	21.94	4.40	27.99	176.74	287	263	48
Mysore	1	229.37	13.69	243.06	25.68	268.74	48.71	10.79	1.03	9.72	3.80	22.21	96.26	549	488	69
	2	173.38	22.82	196.20	44.01	240.21	45.80	12.87	2.76	7.63	7.44	48.29	124.79	737	770	114
Rajasthan	1	165.14	28.29	193.43	51.89	245.32	64.22	—	1.30	6.17	0.61	47.38	119.68	145	145	48
	2	180.42	48.37	228.79	34.60	263.39	52.02	12.45	1.09	19.80	0.70	15.55	101.61	168	170	48
	3	194.40	36.20	230.60	23.11	253.71	28.64	9.37	4.22	9.90	3.41	55.75	111.29	143	156	48
	4	191.08	10.95	202.03	3.02	205.05	52.59	20.46	9.36	43.60	—	33.94	159.95	135	112	48
Punjab, Delhi and Himachal Pradesh	1	272.28	7.31	279.59	20.55	300.14	21.31	11.41	1.1	7.42	2.23	21.31	64.86	368	285	43
	2	214.05	18.11	232.16	30.75	262.91	47.03	13.13	1.30	13.04	2.54	24.25	102.09	877	701	114
Jammu and Kashmir	1	187.26	32.57	219.83	10.63	230.46	24.04	—	46.97	1.96	—	61.57	134.54	238	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (4) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF CASUAL ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	AIE zone number	employed in				unemployed due to							total	number of sample persons	number of sample house-holds	number of sample villages
		wage employment	agricul- tural	non- agricul- tural	sub- total	self- employ- ment	total	want of work	own sick- ness	weather condi- tion	house- hold work, cere- monials	leave, rest, holiday	other reasons			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Uttar Pradesh	1	128.20	38.32	166.52	69.14	235.66	44.12	11.03	2.52	11.07	3.25	57.35	129.34	530	976	144
	2	136.75	34.48	171.48	70.71	242.19	43.92	10.93	3.45	14.30	1.31	48.90	122.81	838	982	144
	3	142.58	37.73	180.31	61.48	241.79	54.17	16.56	2.87	14.07	2.09	33.45	123.21	1388	1454	240
	4	154.23	68.66	222.89	19.99	242.88	40.17	10.31	0.71	10.00	0.04	60.89	122.12	173	339	96
Madhya Pradesh	1	120.30	42.23	162.53	111.39	273.92	38.68	19.68	1.80	10.17	2.13	18.62	91.08	155	226	48
	2	172.94	26.52	199.46	43.81	243.27	55.95	5.33	0.24	19.53	1.24	39.44	121.73	165	291	48
	3	212.90	6.06	218.96	33.14	252.10	39.51	5.36	3.99	12.79	6.93	44.32	112.90	234	263	56
	4	116.23	26.85	143.08	56.48	199.56	60.61	5.74	—	25.89	8.54	64.66	165.44	150	245	48
	5	148.74	31.85	180.59	70.26	250.85	30.37	6.24	—	13.18	3.67	60.69	114.15	352	502	80
	6	207.94	25.94	233.88	61.15	295.03	26.26	10.90	0.54	7.70	5.24	19.33	69.97	159	295	48
Bihar	1	195.33	31.47	226.80	25.04	251.84	65.65	9.01	1.85	5.16	1.15	30.34	113.16	890	1178	190
	2	169.83	33.47	203.30	31.10	234.40	79.21	12.09	11.80	2.39	5.09	20.52	130.60	261	539	96
	3	151.76	32.30	184.06	38.88	222.94	75.44	13.18	2.32	10.41	2.53	38.18	142.06	314	473	87
West Bengal	1	245.21	32.27	277.48	13.71	291.19	46.03	8.93	4.73	5.82	0.45	7.85	73.81	130	265	48
	2	163.78	61.47	225.25	24.97	250.22	86.30	11.12	3.05	2.75	1.11	10.45	114.78	1344	1261	203
Orissa	1	142.61	34.77	177.38	52.86	230.24	58.34	12.43	2.16	24.33	3.27	34.23	134.76	857	1010	144
Assam, Manipur and Tripura	1	275.21	5.33	280.54	34.89	315.43	—	6.53	0.34	11.17	8.59	22.94	49.57	57	135	40
	2	196.21	61.96	258.17	7.08	265.25	14.93	6.50	0.82	18.02	8.04	61.44	99.75	185	353	96

TABLE (4) (Contd.): EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF CASUAL ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	A.L.E. zone number	employed in				unemployed due to								number of		
		agricul- tural	non- agricul- tural	sub- total	self- employ- ment	total	want of work	own sick- ness	weather condi- tion	house- work, cere- monials	leave, rest, holiday	other reasons	total	sample persons	sample house- holds	number of sample villages
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Andhra Pradesh	1	176.18	15.81	191.99	39.70	231.69	67.75	6.77	—	2.87	0.97	54.95	133.31	299	345	48
	2	165.20	21.03	186.23	42.18	228.41	81.37	6.06	0.23	3.25	0.56	45.12	136.59	878	984	144
	3	211.35	26.31	237.66	42.93	280.59	39.15	10.35	0.82	11.38	0.69	22.02	84.41	384	712	103
Madras	1	148.28	21.87	170.15	33.14	203.29	106.56	8.88	1.12	7.00	2.23	35.92	161.71	1336	1626	242
Kerala	1	151.34	13.94	165.28	29.41	194.69	116.09	12.43	0.57	4.12	8.01	29.09	170.31	775	734	124
Bombay	1	206.96	22.89	229.85	37.74	267.59	35.06	7.22	1.02	17.42	3.01	33.68	97.41	547	647	96
	2	196.76	25.18	221.94	34.10	256.04	56.57	9.32	3.25	8.60	9.36	21.86	108.96	398	469	66
	3	200.99	25.61	226.60	38.66	265.26	21.00	10.28	3.00	11.40	0.42	53.64	99.74	279	375	56
	4	182.26	21.95	204.21	23.22	227.43	74.23	10.09	5.53	9.60	3.39	34.73	137.57	508	558	96
	5	165.27	24.24	189.51	65.43	254.94	41.92	8.29	0.30	32.47	3.22	23.86	110.06	168	231	50
	6	149.78	15.10	164.88	8.09	172.97	120.61	11.63	2.32	20.52	5.52	31.43	192.03	246	263	48
Mysore	1	218.33	13.95	232.28	28.56	260.84	53.12	11.23	1.14	10.73	3.91	24.03	104.16	485	488	69
	2	167.82	18.94	186.76	48.34	235.10	50.69	13.32	3.29	8.53	5.66	48.41	129.90	631	770	114
Rajasthan	1	157.07	29.45	186.52	41.35	227.87	74.51	—	—	7.16	0.71	54.75	137.13	127	145	48
	2	148.81	36.63	185.44	45.30	230.74	76.45	6.20	1.61	28.63	0.60	20.77	134.26	123	170	48
	3	181.79	40.65	222.44	25.95	248.39	29.50	10.52	4.73	11.12	3.83	56.91	116.61	121	156	48
	4	141.20	12.12	153.32	4.68	158.00	70.10	8.90	14.50	61.54	—	51.96	207.00	85	112	48
Punjab, Delhi and Himachal Pradesh	1	137.50	17.07	154.57	61.60	216.17	63.75	16.09	4.21	13.33	4.21	47.24	148.83	112	285	48
	2	146.45	28.00	174.45	40.87	215.32	73.20	19.21	1.89	16.15	2.06	37.17	149.68	541	701	144
Jammu and Kashmir	1	109.97	—	109.97	24.65	134.62	2.21	—	212.36	—	—	15.81	230.38	35	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (5) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ATTACHED ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

(1)	(2)	(3)	(4)	employed in			unemployed due to							(15)	(16)	(17)
				wage employment	self-employment	total	want of work	own sickness	weather condition	household work, cere-monials	leave, rest, holiday	other reasons	total			
state	zone number	agricultural	non-agricultural	sub-total										of sample persons	of sample house-holds	of sample villages
Uttar Pradesh	1	208.72	41.88	250.60	35.33	285.93	23.96	13.46	8.82	5.94	0.84	26.05	79.07	611	976	144
	2	209.17	42.24	251.41	21.36	272.77	28.74	12.00	1.60	9.12	0.62	40.15	92.23	322	982	144
	3	317.32	11.86	329.18	12.51	341.69	4.49	7.01	0.09	4.15	0.48	7.09	23.31	398	1454	240
	4	234.48	23.77	258.25	28.09	286.34	27.61	8.74	0.78	10.31	3.44	27.78	78.66	167	339	96
Madhya Pradesh	1	318.46	11.87	330.33	9.42	339.75	2.74	0.43	—	7.89	3.06	11.13	25.25	105	226	48
	2	276.42	13.53	289.95	14.76	304.71	15.52	8.19	0.53	2.38	2.87	30.80	60.29	164	291	48
	3	242.19	30.08	272.27	0.91	273.18	8.23	15.09	1.46	15.47	2.85	48.72	91.82	79	263	56
	4	284.22	5.21	289.43	14.43	303.86	7.99	11.63	—	17.85	—	23.67	61.14	104	245	48
	5	305.79	16.78	322.57	4.06	326.63	7.42	4.66	—	4.49	13.98	7.82	38.37	227	502	80
	6	283.12	34.35	317.47	22.61	340.08	4.86	6.64	—	7.96	2.25	3.21	24.92	194	295	48
Bihar	1	195.34	28.42	223.76	21.01	244.77	76.50	8.26	2.33	3.98	1.59	27.57	120.23	532	1178	190
	2	184.28	26.39	210.67	19.98	230.65	57.31	21.94	5.11	7.08	7.81	35.10	135.35	403	539	96
	3	224.63	40.19	264.82	42.25	307.07	18.54	3.01	2.79	5.49	2.73	25.37	57.93	189	473	87
West Bengal	1	267.92	—	267.92	14.59	282.51	39.86	1.28	5.63	2.69	0.90	32.13	82.49	211	265	48
	2	278.84	42.49	321.33	13.47	334.80	8.66	3.10	1.21	7.34	1.32	8.57	30.20	208	1261	203
Orissa	1	290.60	17.58	308.18	13.96	322.14	15.02	6.51	—	7.14	2.23	11.96	42.86	292	1010	144
Assam, Manipur and Tripura	1	256.33	43.98	300.31	5.50	305.81	45.03	—	—	—	—	14.16	59.19	78	135	40
	2	279.19	16.51	295.70	1.49	297.19	6.21	8.79	0.90	4.98	14.37	32.56	67.81	191	353	96

TABLE (5) (Contd.) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ATTACHED ADULT MALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in					unemployed due to							total	number of	
		wage employment		self-employment		want of work	own sickness	weather condition	house-work, cere-monials	leave, rest, holiday	other reasons	persons	house-holds		sample villages	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Andhra Pradesh	1	321.18	22.37	343.55	0.44	343.99	3.69	15.83	—	1.49	—	—	21.01	30	345	48
	2	339.36	8.92	348.28	4.98	353.26	2.45	7.78	—	1.12	0.39	—	11.74	153	984	144
	3	338.58	5.58	344.16	9.31	353.47	1.19	2.25	—	2.51	0.98	4.60	11.53	323	712	103
Madras	1	274.59	10.65	285.24	12.08	297.32	33.57	10.63	0.46	5.20	1.62	16.20	67.68	297	1626	242
Kerala	1	190.80	16.06	206.86	13.49	220.35	101.20	6.80	—	1.24	10.09	25.32	144.65	83	734	124
Bombay	1	277.69	4.36	282.05	20.46	302.51	14.20	11.43	—	8.00	5.81	23.05	62.49	141	647	96
	2	313.66	1.50	315.16	13.17	328.33	20.62	2.29	5.31	3.05	—	5.40	36.67	120	469	66
	3	322.28	21.52	343.80	0.69	344.49	5.87	6.73	—	5.49	0.42	2.00	20.51	137	375	56
	4	324.70	7.04	331.74	—	331.74	8.81	11.34	0.94	2.64	2.19	7.34	33.26	108	558	96
	5	281.48	19.12	300.60	15.91	316.51	—	—	—	32.57	14.42	1.50	48.49	21	231	50
	6	206.10	41.13	247.23	1.18	248.41	73.44	—	1.18	27.53	—	14.44	116.59	41	263	48
Mysore	1	324.89	11.40	336.29	0.74	337.03	10.57	7.01	—	0.99	2.82	6.58	27.97	64	488	69
	2	198.31	40.23	238.54	24.54	263.08	23.86	10.81	0.41	3.57	15.44	47.83	101.92	106	770	114
Rajasthan	1	215.56	21.04	236.60	117.66	354.26	—	—	9.45	—	—	1.29	10.74	18	145	48
	2	247.75	73.37	321.12	11.80	332.92	—	25.76	—	1.00	0.90	4.42	32.08	45	170	48
	3	297.07	—	297.07	—	297.07	21.67	—	—	—	—	46.26	67.93	22	156	48
	4	281.96	8.81	290.77	—	290.77	20.69	41.52	—	10.90	—	1.12	74.23	50	112	48
Punjab, Delhi and Himachal Pradesh	1	324.71	3.52	328.23	4.58	332.81	4.80	9.59	—	5.13	1.46	11.21	32.19	256	285	48
	2	313.87	3.50	317.37	15.79	333.16	8.38	4.14	0.43	10.44	3.23	5.22	31.84	336	701	144
Jammu and Kashmir	1	209.20	41.82	251.02	6.64	257.66	30.25	—	—	2.51	—	74.58	107.34	203	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (6) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ADULT FEMALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in				unemployed due to							number of			
		wage employment		self-employment	total	want of work	own sickness	weather condition	household work, cere-moniais	leave, rest, holiday	other reasons	total	sample persons	house-holds	number of sample villages	
		agricul-tural	non-agricul-tural													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Uttar Pradesh	1	78.15	5.80	83.95	48.05	132.00	79.59	7.59	0.56	24.36	3.71	117.19	233.00	838	976	144
	2	107.04	9.46	116.50	36.34	152.84	44.36	8.54	2.11	35.07	0.16	121.92	212.16	615	982	144
	3	112.31	3.18	115.49	41.42	156.91	88.12	3.37	1.04	42.77	7.54	65.25	208.09	290	1454	240
	4	119.76	15.05	134.81	29.31	164.12	75.99	8.38	0.07	7.22	3.08	106.14	200.88	280	339	96
Madhya Pradesh	1	117.57	20.19	137.76	47.62	185.38	70.49	10.46	5.57	19.05	3.03	73.02	179.62	136	226	48
	2	145.30	12.61	157.91	12.92	170.83	79.19	3.34	3.92	16.77	6.19	84.76	194.17	298	291	48
	3	169.79	2.54	172.33	21.62	193.95	37.60	10.94	10.93	20.41	6.79	84.38	171.05	285	263	56
	4	103.43	8.37	111.80	45.19	156.99	53.68	8.03	—	57.61	8.28	80.41	208.01	206	245	48
	5	110.71	17.34	128.05	40.11	168.16	77.67	4.98	—	16.21	2.22	95.76	196.84	541	502	80
	6	194.28	9.81	204.09	28.86	232.95	61.95	6.87	—	28.68	1.18	33.37	132.05	270	295	48
Bihar	1	127.39	8.82	136.21	31.23	167.44	131.47	5.82	3.43	11.64	0.52	44.68	197.56	486	1178	190
	2	95.54	4.37	99.91	25.26	125.17	106.55	10.81	3.10	19.25	1.73	98.83	239.83	484	539	96
	3	118.22	17.42	135.64	21.04	156.68	132.26	6.88	1.48	19.78	4.43	43.49	208.32	398	473	87
West Bengal	1	212.59	—	212.59	19.48	232.07	52.94	1.50	—	18.21	0.60	59.68	132.93	51	265	48
	2	130.38	33.03	163.41	29.27	192.68	93.75	3.29	0.69	31.87	3.66	39.06	172.32	228	1261	203
Orissa	1	70.20	21.14	91.34	34.84	126.18	64.25	5.58	1.05	62.64	2.85	102.45	238.82	625	1010	144
Assam, Manipur and Tripura	1	159.80	2.67	162.47	33.89	196.36	71.99	13.38	—	14.85	1.70	66.72	168.64	114	135	40
	2	233.16	12.37	245.53	6.90	252.43	15.37	10.81	—	10.61	15.32	60.46	112.57	132	353	96

TABLE (6) (Contd.) : EMPLOYMENT AND UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) DURING THE YEAR 1956-57 OF ADULT FEMALE AGRICULTURAL LABOURERS BY CATEGORY OF WORK

state	ALE zone number	employed in				unemployed due to							number of			
		wage employment		self-employment		total	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	of sample villages
agricultural	non-agricultural	sub-total	self-employment	want of work	own sickness											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Andhra Pradesh	1	133.56	5.15	138.71	32.08	170.79	89.82	2.70	0.58	1.85	4.04	95.22	194.21	323	345	48
	2	110.91	8.12	119.03	26.44	145.47	104.48	6.25	—	5.93	0.40	102.47	219.53	904	984	144
	3	198.37	10.99	209.36	19.21	228.57	46.51	11.01	1.40	20.74	1.10	55.67	136.43	718	712	103
Madras	1	135.23	7.23	142.46	12.49	154.95	114.74	9.65	2.26	15.80	2.91	64.69	210.05	1409	1636	242
Kerala	1	122.80	7.38	130.18	25.41	155.59	132.37	5.65	0.50	4.25	8.81	57.82	209.41	562	734	124
Bombay	1	175.50	7.91	183.41	27.21	210.62	53.16	11.98	3.18	23.51	2.41	60.14	154.38	684	647	96
	2	163.33	7.12	170.45	24.37	194.82	96.35	4.83	5.39	8.50	3.98	51.13	170.18	518	469	66
	3	167.77	4.13	171.90	19.57	191.47	34.91	6.81	4.85	16.76	2.85	107.35	173.53	348	375	56
	4	135.23	13.52	148.75	24.62	173.37	95.59	8.64	2.87	28.92	3.34	52.27	191.63	442	558	96
	5	138.37	16.58	154.95	52.82	207.77	37.23	9.90	0.96	45.89	2.04	61.21	157.23	209	231	50
	6	109.23	16.41	126.34	10.89	137.23	143.13	17.94	0.78	8.03	1.08	56.81	227.77	170	263	48
Mysore	1	181.80	10.71	192.51	17.37	209.88	78.12	14.91	0.45	14.77	5.18	41.69	155.12	419	488	69
	2	127.79	8.04	135.83	28.87	164.70	53.72	13.32	3.62	20.82	4.61	104.21	200.30	771	770	114
Rajasthan	1	125.13	—	125.13	61.45	186.58	79.00	5.57	3.82	13.69	4.64	71.70	178.42	113	145	48
	2	83.46	45.37	128.83	20.75	149.58	135.01	9.22	—	9.11	0.64	61.44	215.42	150	170	48
	3	180.97	15.19	196.16	15.38	211.54	29.97	7.28	8.70	8.26	2.74	96.51	153.46	120	156	48
	4	29.85	16.78	46.63	29.85	76.48	120.12	—	—	53.45	—	114.95	288.52	50	112	48
Punjab, Delhi and Himachal Pradesh	1	92.55	—	92.55	45.58	238.13	11.07	—	—	22.39	—	93.41	126.87	54	285	48
	2	157.32	16.44	173.76	77.25	251.01	36.60	5.49	0.69	8.94	1.72	60.55	113.99	229	701	144
Jammu and Kashmir	1	136.87	—	136.87	—	136.87	—	—	—	—	—	228.13	228.13	3	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (7) : AVERAGE DAILY WAGE (ANNAS) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS BY TYPE OF OPERATION

state	ALE zone number	agricultural operations						all operations	non-agricultural operations	all operations	number of sample persons	number of sample households	number of sample villages
		ploughing	sowing	trans-planting	weeding	harvesting	others						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Uttar Pradesh	1	12.80	8.80	21.76	7.84	12.32	12.00	13.44	14.72	13.76	530	976	144
	2	14.08	12.32	8.96	8.48	15.04	12.16	12.48	14.24	12.80	838	982	144
	3	18.40	17.28	17.12	16.00	16.48	16.48	16.64	17.60	16.80	1388	1454	240
	4	10.72	35.04	—	19.52	15.68	15.20	14.40	14.08	14.24	173	339	96
Madhya Pradesh	1	14.08	15.20	—	9.12	21.44	11.36	16.48	20.64	17.44	155	226	48
	2	12.96	16.00	—	11.52	18.56	13.12	14.40	14.24	14.40	165	291	48
	3	12.64	9.28	—	9.76	15.84	11.20	13.76	17.44	13.92	234	263	56
	4	13.92	12.32	12.00	10.40	9.60	9.60	10.72	15.04	11.52	150	245	48
	5	15.68	11.52	—	8.16	11.68	11.52	11.36	13.44	11.68	352	502	80
	6	10.24	—	10.40	7.84	9.76	15.04	11.68	14.56	12.00	159	295	48
Bihar	1	13.76	21.28	14.88	13.60	14.56	13.44	14.08	19.04	14.56	890	1178	190
	2	17.76	13.28	18.40	17.28	17.12	13.92	16.64	16.64	16.64	261	539	96
	3	17.44	18.24	24.00	15.52	13.28	13.28	15.52	17.60	15.84	314	473	87
West Bengal	1	18.08	—	31.36	30.08	27.04	24.96	24.00	25.28	24.00	130	265	48
	2	23.84	24.00	25.44	21.92	21.60	22.24	22.72	20.16	22.08	1344	2161	203
Orissa	1	10.08	17.44	13.92	12.64	12.96	13.12	12.80	14.40	13.12	857	1010	144
Assam, Manipur and Tripura	1	34.72	—	24.64	—	32.96	23.52	28.16	16.00	28.00	57	135	40
	2	25.44	24.80	17.92	24.00	21.76	23.84	24.00	25.92	24.32	185	353	96

TABLE (7) (Contd.) : AVERAGE DAILY WAGE (ANNAS) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS BY TYPE OF OPERATION.

state	ALE zone number	agricultural operations						non-agricultural operations	all operations	number of sample persons	number of sample households	number of sample villages	
		ploughing	sowing	trans-planting	weeding	harvesting	others						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Andhra Pradesh	1	14.08	15.52	8.48	12.00	11.52	12.64	12.32	15.52	12.64	299	345	48
	2	15.84	19.84	15.36	13.92	14.56	16.48	15.52	16.96	15.68	878	984	144
	3	13.76	10.40	8.64	10.88	9.28	11.52	11.36	11.84	11.36	384	712	103
Madras	1	14.56	21.28	14.72	9.76	12.96	13.12	13.44	14.56	13.60	1336	1626	242
Kerala	1	20.80	24.00	12.48	—	21.12	20.48	20.48	21.76	20.64	775	734	124
Bombay	1	14.72	12.32	10.88	10.56	13.28	13.60	13.28	17.12	13.60	547	647	96
	2	13.44	12.00	8.00	8.96	10.40	11.52	11.20	13.76	11.52	398	469	66
	3	11.84	—	19.84	12.32	14.24	13.44	13.60	13.76	13.60	279	375	56
	4	19.84	23.84	15.20	16.00	16.00	14.88	16.00	16.96	16.16	508	558	96
	5	18.88	—	19.52	16.64	18.56	16.64	17.92	20.48	18.08	168	231	50
	6	20.80	23.84	—	19.52	21.28	24.64	22.72	24.00	22.88	246	263	48
Mysore	1	13.12	13.12	26.08	11.68	11.68	13.28	12.64	16.64	12.80	485	488	69
	2	16.00	17.28	15.20	8.96	13.92	15.04	14.40	18.88	14.72	631	770	114
Rajasthan	1	14.88	16.00	16.00	12.48	11.68	13.92	13.44	16.00	13.92	127	145	48
	2	9.92	12.80	—	12.48	16.32	12.16	13.12	22.08	15.04	123	170	48
	3	17.76	—	—	14.24	16.64	13.44	14.56	21.76	15.04	121	156	48
	4	36.48	39.36	—	20.00	68.48	35.04	37.92	37.76	37.92	85	112	48
Punjab, Delhi and Himachal Pradesh	1	39.84	28.00	65.92	42.56	40.16	40.00	40.64	28.64	39.20	112	285	48
	2	32.48	26.72	20.00	23.52	39.36	29.12	30.56	21.44	28.96	541	701	144
Jammu and Kashmir	1	—	—	—	—	10.40	20.48	17.44	—	17.44	35	162	192

TABLE (8) : AVERAGE DAILY WAGE (ANNAS) OF CASUAL ADULT FEMALE AGRICULTURAL LABOURERS BY TYPE OF OPERATION

state	ALE zone number	agricultural operations						all operations	non-agricultural operations	all operations	number of sample persons	number of sample house-holds	number of sample villages
		ploughing	sowing	trans-planting	weeding	harvesting	others						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Uttar Pradesh	1	8.96	6.88	13.92	8.48	11.36	7.52	10.56	9.12	10.40	761	976	144
	2	8.00	8.16	8.64	7.52	9.76	8.00	8.48	9.28	8.48	545	982	144
	3	12.96	9.12	13.92	10.72	9.92	24.16	13.28	11.04	13.12	229	1454	240
	4	8.16	14.56	9.92	12.80	11.68	10.88	11.36	9.76	11.20	186	339	96
Madhya Pradesh	1	10.08	—	—	10.72	22.08	10.72	17.60	12.64	16.48	124	226	48
	2	—	14.24	—	9.44	13.76	9.92	11.52	9.92	11.36	267	291	48
	3	16.96	—	—	8.00	9.28	10.72	9.44	5.92	9.44	268	263	56
	4	—	5.92	12.00	10.40	7.36	8.00	7.84	7.20	7.84	188	245	48
	5	—	—	12.80	8.48	8.48	8.32	8.64	8.80	8.64	479	502	80
	6	8.00	8.16	8.96	7.84	9.44	8.96	8.80	10.24	8.96	218	295	48
Bihar	1	15.68	13.92	13.12	8.64	10.88	9.44	10.88	11.52	11.04	374	1178	190
	2	—	—	12.16	11.52	14.56	13.12	13.44	10.08	13.28	225	539	96
	3	13.76	13.92	15.36	13.28	10.88	9.44	12.96	12.48	12.80	307	473	87
West Bengal	1	10.72	—	—	27.04	—	12.00	16.80	16.00	16.48	12	265	48
	2	—	18.40	18.56	16.96	10.88	16.32	15.68	14.40	15.36	212	1261	203
Orissa	1	7.84	9.92	8.96	9.28	9.28	8.16	8.80	9.12	8.96	590	1010	144
	2	—	—	—	—	—	—	—	—	—	—	—	—
Assam, Manipur and Tripura	1	30.88	—	21.60	17.60	10.72	16.64	17.92	16.00	17.76	49	135	40
	2	32.00	17.12	25.92	16.00	16.00	16.16	18.56	16.16	17.92	54	353	96

TABLE (8) (Contd.) : AVERAGE DAILY WAGE (ANNAS) OF CASUAL ADULT FEMALE AGRICULTURAL LABOURERS BY TYPE OF OPERATION

state	A.L.E. zone number	agricultural operations						non- agricul- tural opera- tions	all opera- tions	number of sample persons	number of sample house- holds	number of sample villages	
		plough- ing	sowing	trans- planting	weeding	harvest- ing	others						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Andhra Pradesh	1	9.76	11.68	10.24	9.92	9.76	6.56	9.44	8.80	9.44	319	345	48
	2	16.00	20.32	11.84	10.24	10.56	9.12	11.04	13.28	11.29	892	984	144
	3	5.60	7.84	4.96	6.08	6.56	6.72	6.24	7.68	6.40	644	712	103
Madras	1	8.96	9.76	8.48	7.20	7.84	7.04	7.68	7.68	7.68	1329	1626	242
Kerala	1	16.00	17.28	9.44	9.12	11.52	12.32	11.20	9.28	11.04	477	734	124
Bombay	1	6.08	8.48	9.60	7.20	8.80	8.16	8.00	9.92	8.16	663	647	96
	2	4.00	9.92	5.92	4.80	5.76	6.88	5.92	7.68	5.92	505	469	66
	3	6.08	—	16.80	7.36	8.48	7.20	8.32	7.68	8.32	332	375	56
	4	12.00	15.04	11.52	13.92	12.32	12.16	12.96	8.64	12.48	427	558	96
	5	18.40	8.00	16.32	10.08	16.80	15.04	15.36	15.04	15.20	193	231	50
	6	20.00	—	—	18.40	16.80	16.00	16.80	14.24	16.48	153	263	48
Mysore	1	7.04	6.40	18.72	7.36	7.36	8.00	7.84	8.16	7.84	409	488	69
	2	7.20	12.48	12.64	7.68	9.92	10.72	9.92	10.72	9.92	698	770	114
Rajasthan	1	4.32	—	4.64	11.36	7.84	9.28	9.92	—	9.92	107	145	48
	2	—	6.08	—	8.32	11.20	8.64	9.28	8.00	8.96	142	170	48
	3	—	—	6.24	10.40	9.28	8.00	8.96	7.36	8.80	109	156	48
	4	—	—	—	—	61.12	18.08	32.96	38.88	35.04	48	112	48
Punjab, Delhi and Himachal Pradesh	1	—	—	—	—	22.72	13.44	22.56	—	22.56	45	285	48
	2	—	—	16.00	31.04	22.24	15.04	18.88	6.40	16.64	175	701	144
Jammu and Kashmir	1	—	—	—	—	—	—	—	—	—	—	162	192

TABLE (9) : PERCENTAGE DISTRIBUTION OF MANDAYS WORKED BY CASUAL ADULT MALE AGRICULTURAL LABOURERS IN AGRICULTURAL OPERATIONS BY WAGE RANGE AND AVERAGE DAILY WAGE (ANNAS)

AGRICULTURAL OPERATIONS BY WAGE RANGE

state	ALE zone number	wage range (annas)								34 and not above recorded	average daily wage (annas)	coefficient of variation	number of sample persons	number of sample house-holds	number of sample villages	
		10-14 less than 10	14-18	18-22	22-26	26-30	30-34	(9)	(10)							(11)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Uttar Pradesh	1		39.32	24.69	10.38	8.15	16.22	—	0.02	0.91	0.31	13.44	51.56	530	976	144
	2		38.77	21.98	26.99	8.06	1.93	0.41	—	0.35	0.15	12.48	45.89	838	982	144
	3		13.41	12.34	46.04	10.69	11.57	1.52	3.12	0.84	0.11	16.64	37.16	1388	1454	240
	4		14.24	26.39	49.00	3.79	6.29	—	0.25	0.04	—	14.40	29.33	173	339	96
Madhya Pradesh	1		19.46	12.40	28.44	22.23	3.59	2.00	8.78	—	3.10	16.48	44.01	155	226	48
	2		23.10	12.18	41.58	0.81	3.26	—	0.92	—	15.15	14.40	40.08	165	291	48
	3		36.10	30.42	11.40	0.71	12.51	7.59	0.32	0.19	0.76	13.76	49.11	234	263	56
	4		48.55	33.29	5.82	5.74	2.54	—	—	1.12	2.94	10.72	45.13	150	245	48
	5		34.46	36.82	20.47	5.45	—	—	0.05	0.33	2.42	11.36	39.64	352	502	80
	6		53.51	17.12	24.66	2.30	—	—	0.11	2.30	—	11.68	49.01	159	295	48
Bihar	1		33.84	12.79	36.84	9.03	3.72	0.32	1.79	1.65	0.02	14.08	48.78	890	1178	190
	2		6.03	8.09	60.18	9.80	12.38	2.34	1.18	—	—	16.64	26.04	261	539	96
	3		3.29	33.39	47.97	5.39	6.28	0.20	3.48	—	—	15.52	30.32	314	473	87
West Bengal	1		—	1.31	37.62	4.75	11.22	20.29	15.69	9.12	—	24.00	30.86	130	265	48
	2		0.42	5.60	11.40	20.87	38.17	15.58	6.69	1.27	—	22.72	22.78	1344	1261	203
Orissa	1		24.07	39.30	29.49	5.00	1.19	0.65	0.02	0.28	—	12.80	32.27	857	1010	144
Assam, Manipur and Tripura	1		—	1.09	7.75	27.10	8.32	—	31.41	24.32	—	28.16	27.59	57	135	40
	2		10.73	13.68	14.88	10.59	40.71	6.29	21.70	1.42	—	25.00	23.94	185	353	96

TABLE (9) (Contd.): PERCENTAGE DISTRIBUTION OF MANDAYS WORKED BY CASUAL ADULT MALE AGRICULTURAL LABOURERS IN AGRICULTURAL OPERATIONS BY WAGE RANGE AND AVERAGE DAILY WAGE (ANNAS)

state	ALE zone number	wage range (annas)								average daily wage recorded (annas)	coeff- icient of varia- tion	number of sample persons	number of sample house- holds	number of sample villages	
		less than 10	10-14	14-18	18-22	22-26	26-30	30-34	34 and above						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Andhra Pradesh	1	19.80	49.85	21.23	6.75	2.25	—	0.12	—	—	12.32	30.29	299	345	48
	2	13.93	15.31	50.04	13.29	3.66	0.26	3.20	0.12	0.19	15.52	33.29	878	984	144
	3	44.37	21.46	30.84	2.70	0.11	—	0.34	0.18	—	11.36	41.08	384	712	103
Madras	1	25.29	28.43	34.83	4.81	4.91	0.70	0.31	0.72	—	13.44	40.74	1336	1636	242
Kerala	1	3.42	8.46	20.11	22.31	34.81	4.47	5.67	0.75	—	20.48	28.69	775	734	124
Bombay	1	19.83	36.88	33.12	6.03	2.30	0.77	—	—	1.07	13.28	31.38	547	647	96
	2	33.61	39.28	19.67	3.19	1.35	—	—	—	2.90	11.20	32.72	398	469	66
	3	23.38	31.40	27.94	10.53	6.75	—	—	—	—	13.60	34.52	279	375	56
	4	16.64	20.64	32.97	12.32	12.57	1.97	1.48	0.98	0.43	16.00	37.70	508	558	96
	5	7.27	19.01	28.10	20.69	15.18	8.22	0.89	—	0.64	17.92	31.28	168	231	50
	6	3.78	5.97	24.03	11.90	30.69	2.59	15.63	4.74	0.67	22.72	36.61	246	263	48
Mysore	1	30.11	34.78	24.00	6.83	1.62	0.04	1.80	—	0.82	12.64	38.34	485	488	69
	2	18.69	26.74	38.44	5.23	9.24	1.10	0.11	—	0.45	14.40	34.28	631	770	114
Rajasthan	1	22.67	22.65	49.87	2.86	—	—	1.19	—	0.76	13.44	28.89	127	145	48
	2	31.10	12.72	35.81	5.41	4.39	1.00	—	—	9.57	13.12	39.45	123	170	48
	3	18.93	19.89	44.40	7.46	4.54	1.77	1.46	—	1.55	14.56	36.60	121	156	48
	4	1.38	2.64	13.12	5.28	19.12	6.18	17.16	35.12	—	37.92	53.81	85	112	48
Punjab, Delhi and Himachal Pradesh	1	3.81	—	2.27	5.18	5.74	1.67	26.64	52.39	2.30	40.64	34.69	112	285	48
	2	8.66	4.64	10.24	6.02	14.53	7.80	20.95	26.12	1.04	30.56	49.23	541	701	144
Jammu and Kashmir	1	18.10	6.03	27.01	17.82	31.04	—	—	—	—	17.44	34.37	35	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (10) : PERCENTAGE DISTRIBUTION OF MANDAYS WORKED BY CASUAL ADULT FEMALE AGRICULTURAL LABOURERS
IN AGRICULTURAL OPERATIONS BY WAGE RANGE AND AVERAGE DAILY WAGE (ANNAS)

state	ALE zone number	wage range (annas)										coeff- icient of daily wage annas	number of sample persons	number of sample house- holds	number of sample villages
		less than 10	10-14	14-18	18-22	22-26	26-30	30-34	34 and not above recorded	(11)	(12)	(13)	(14)	(15)	(16)
Uttar Pradesh	1	50.08	32.05	8.47	9.02	0.38	—	—	—	—	10.56	38.29	761	976	144
	2	69.31	20.28	5.64	1.67	0.45	—	0.18	—	2.47	8.48	39.26	545	982	144
	3	63.77	18.85	8.58	4.35	0.95	—	2.89	0.61	—	13.28	34.31	229	1454	240
	4	36.11	50.44	7.09	3.01	3.35	—	—	—	—	11.36	31.40	186	339	96
Madhya Pradesh	1	15.68	25.19	18.39	8.11	14.97	0.44	14.53	1.08	1.61	17.60	48.02	124	226	48
	2	47.57	23.47	20.40	1.85	1.54	0.37	1.17	0.86	2.77	11.52	52.00	267	291	48
	3	62.43	25.31	7.90	1.05	1.40	—	0.13	0.02	1.76	9.44	36.73	268	263	56
	4	76.58	21.65	1.21	—	—	—	—	—	0.56	7.84	24.78	188	245	48
	5	66.86	24.29	8.85	—	—	—	—	—	—	8.64	31.31	479	502	80
	6	76.79	18.68	3.09	1.44	—	—	—	—	—	8.80	27.53	218	295	48
Bihar	1	45.32	32.05	21.75	0.88	—	—	—	—	—	10.88	34.17	374	1178	190
	2	22.08	24.70	41.02	8.69	3.20	—	0.31	—	—	13.44	30.89	225	539	96
	3	22.11	44.03	20.79	10.89	1.18	—	—	—	—	12.96	29.18	307	473	87
West Bengal	1	15.36	48.63	2.56	—	—	33.45	—	—	—	16.80	48.12	12	265	48
	2	20.82	8.63	42.47	11.85	15.41	0.82	—	—	—	15.68	32.74	212	1261	203
Orissa	1	69.42	27.24	1.40	1.24	0.70	—	—	—	—	8.80	31.54	590	1010	144
Assam, Manipur and Tripura	1	—	2.17	67.92	21.11	5.69	—	3.11	—	—	17.92	21.25	49	135	40
	2	4.26	—	72.41	—	3.46	2.31	11.83	1.30	4.43	18.56	34.53	54	353	96

TABLE (10) (Contd.): PERCENTAGE DISTRIBUTION OF MANDAYS WORKED BY CASUAL ADULT FEMALE AGRICULTURAL LABOURERS IN AGRICULTURAL OPERATIONS BY WAGE RANGE AND AVERAGE DAILY WAGE (ANNAS)

state	ALE zone number	wage range (annas)							34 and not above recorded	average daily wage (annas)		coeff. of variation	number of sample persons	number of sample house-holds	number of sample villages
		less than 10	10-14	14-18	18-22	22-26	26-30	30-34		—	—				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Andhra Pradesh	1	45.95	49.83	4.02	0.20	—	—	—	—	—	9.44	24.91	319	345	48
	2	39.79	36.20	19.72	2.88	0.81	0.09	0.03	0.20	0.31	11.04	39.04	892	984	144
	3	91.20	5.65	1.79	0.69	—	0.04	—	—	0.63	6.24	36.01	644	712	103
Madras	1	78.29	17.28	3.79	0.31	0.17	0.08	—	—	0.08	7.68	32.77	1329	1626	242
Kerala	1	48.03	18.04	24.93	7.73	0.89	—	—	0.38	—	11.20	42.30	477	734	124
Bombay	1	81.47	10.45	6.28	0.02	0.07	—	0.15	—	1.56	8.00	32.50	663	647	96
	2	93.65	2.97	1.03	0.38	—	—	—	—	1.97	5.92	27.51	505	469	66
	3	76.10	15.27	3.67	0.43	4.53	—	—	—	—	8.32	50.64	332	375	56
	4	30.92	24.10	32.37	9.79	1.11	0.21	0.52	0.15	0.83	12.96	36.64	427	558	96
	5	14.34	41.29	12.52	10.78	12.79	8.28	—	—	—	15.36	40.46	193	231	50
	6	6.67	15.72	50.69	11.84	12.02	—	2.05	1.01	—	16.80	31.31	153	263	48
Mysore	1	84.78	8.56	3.37	2.21	—	—	—	—	1.08	7.84	36.05	409	488	69
	2	56.13	25.06	15.13	3.01	0.21	—	0.35	0.06	0.05	9.92	42.02	698	770	114
Rajasthan	1	58.31	11.04	30.65	—	—	—	—	—	—	9.92	43.25	107	145	48
	2	66.07	14.58	16.12	1.05	0.86	—	—	—	1.32	9.28	40.11	142	170	48
	3	66.63	29.71	3.07	0.59	—	—	—	—	—	8.96	29.61	109	156	48
	4	19.19	—	4.80	37.36	2.13	—	—	36.52	—	32.96	77.83	48	112	48
Punjab, Delhi and Himachal Pradesh	1	4.84	70.89	1.82	—	—	1.44	—	12.63	8.38	12.56	116.41	45	285	48
	2	20.65	21.05	18.53	7.50	13.08	1.50	1.93	13.66	2.10	18.8	71.91	175	701	144
Jammu and Kashmir	1	—	—	—	—	—	—	—	—	—	—	—	—	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (11) : AVERAGE ANNUAL NET INCOME (RUPEES) AND PERCENTAGE OF ANNUAL NET INCOME OF AGRICULTURAL LABOUR HOUSEHOLDS BY SOURCE

state	ALE zone number	average annual income per household (Rs.) from						percentage of annual income by source								number of sample households	number of sample villages
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
Uttar Pradesh	1	76.89	208.47	53.84	28.78	27.57	395.55	19.44	52.70	13.61	7.28	6.97	100.00	976	144		
	2	45.83	176.16	45.37	13.68	14.27	295.31	15.52	59.66	15.36	4.63	4.83	100.00	982	144		
	3	25.60	241.59	51.57	21.75	17.24	357.75	7.16	67.53	14.41	6.08	4.82	100.00	1454	240		
	4	26.24	255.23	55.25	7.37	9.73	353.82	7.42	72.13	15.62	2.08	2.75	100.00	339	96		
Madhya Pradesh	1	27.70	327.02	58.47	20.09	5.70	438.98	6.31	74.49	13.32	4.58	1.30	100.00	226	48		
	2	15.42	321.49	38.06	9.29	8.28	392.54	3.93	81.89	9.70	2.37	2.11	100.00	291	48		
	3	11.81	337.73	14.17	8.77	2.40	374.88	3.15	90.09	3.78	2.34	0.64	100.00	263	56		
	4	28.30	168.77	29.34	9.25	4.75	240.41	11.77	70.20	12.20	3.85	1.98	100.00	245	48		
	5	59.20	238.51	37.25	6.37	3.15	344.48	17.19	69.24	10.81	1.85	0.91	100.00	502	80		
	6	33.98	315.46	48.49	6.37	4.29	408.59	8.32	77.20	11.87	1.56	1.05	100.00	295	48		
Bihar	1	36.54	263.32	54.36	6.09	13.89	374.20	9.76	70.37	14.53	1.63	3.71	100.00	1178	190		
	2	46.99	272.62	50.27	8.49	3.94	382.31	12.29	71.31	13.15	2.22	1.03	100.00	539	96		
	3	45.23	276.01	57.84	16.94	15.00	411.02	11.00	67.16	14.07	4.12	3.65	100.00	473	87		
West Bengal	1	35.92	563.45	54.46	4.61	4.86	663.30	5.42	84.94	8.21	0.70	0.73	100.00	265	48		
	2	36.42	346.77	121.56	7.71	23.97	536.43	6.79	64.64	22.66	1.44	4.47	100.00	1261	203		
Orissa	1	35.39	191.70	48.89	13.27	7.24	296.49	11.94	64.65	16.49	4.48	2.44	100.00	1010	144		
Assam, Manipur and Tripura	1	67.78	845.04	47.91	0.00	43.54	1004.27	6.75	84.14	4.77	0.00	4.34	100.00	135	40		
	2	31.85	619.24	76.05	1.37	18.77	747.28	4.26	82.87	10.18	0.18	2.51	100.00	353	96		

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (12): EXTENT, PURPOSES AND SOURCES OF DEBT

state	ALE zone number	average size of households	average number of earners per household	percentage of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	debt per indebted household (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Uttar Pradesh	1	5.13	2.66	77.11	5.32	2.72	102.87	133.41
	2	4.28	2.17	65.38	4.61	2.33	63.86	97.69
	3	4.33	1.88	75.51	4.56	1.98	141.85	187.85
	4	4.07	2.15	61.55	4.46	2.35	115.30	187.33
Madhya Pradesh	1	4.30	2.31	65.01	4.70	2.44	138.59	213.16
	2	4.02	2.47	58.91	4.35	2.61	93.41	158.57
	3	3.94	2.44	44.96	4.43	2.68	30.04	66.81
	4	3.87	2.28	47.83	4.23	2.52	43.43	90.79
	5	4.12	2.54	42.99	4.63	2.74	20.98	48.80
	6	4.49	2.46	54.89	4.97	2.80	58.81	107.14
Bihar	1	5.11	1.86	70.25	5.20	1.85	116.55	165.90
	2	4.93	2.29	79.12	5.01	2.34	111.01	140.31
	3	4.30	2.13	49.54	4.62	2.24	29.45	59.44
West Bengal	1	4.23	1.85	71.13	4.36	1.87	73.12	102.80
	2	4.38	1.62	67.95	4.58	1.65	48.69	71.66
Orissa	1	4.22	2.14	62.22	4.40	2.22	37.50	60.28
Assam, Manipur and Tripura	1	4.03	2.18	13.39	3.56	2.06	5.87	43.80
	2	4.20	1.80	31.13	3.95	1.66	19.86	63.78

TABLE (12) (Contd.): EXTENT, PURPOSES AND SOURCES OF DEBT

distribution of debt (Rs.) per indebted household by															
source	A.I.E. zone number	purpose					source						not recorded	number of house- holds	number of sample villages
		produc- tion	consump- tion	social	others	not recorded	em- ployers	shop- keepers	money lenders	co-opera- tive societies	others	(20)			
(1)	(2)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
Uttar Pradesh	1	49.05	45.15	16.50	22.71	—	22.04	66.11	2.23	4.12	38.64	0.27	976	144	
	2	29.94	40.39	16.29	10.91	0.16	12.66	52.92	3.31	1.82	26.07	0.91	982	144	
	3	56.35	70.79	27.32	33.00	0.39	21.28	85.13	4.83	1.96	73.83	0.82	1454	240	
	4	119.79	39.13	4.47	23.94	—	43.31	107.27	1.00	2.14	33.50	0.11	339	96	
Madhya Pradesh	1	88.77	59.03	24.93	37.53	2.91	88.52	80.48	17.05	3.33	20.88	2.91	226	48	
	2	64.75	56.63	8.37	28.11	0.70	73.06	28.32	12.16	—	45.02	—	291	48	
	3	18.02	26.00	17.69	4.85	0.25	14.38	18.50	11.43	1.73	20.77	—	263	56	
	4	23.00	45.66	12.19	9.94	—	38.96	6.62	4.99	1.40	38.82	—	245	48	
	5	23.53	13.07	10.15	2.05	—	11.69	9.23	1.98	0.82	25.08	—	502	80	
	6	28.65	66.31	4.86	7.32	—	17.15	43.53	17.73	2.31	26.42	—	295	48	
Bihar	1	92.61	45.96	7.56	19.77	—	42.98	82.97	0.21	0.17	39.56	0.01	1178	190	
	2	71.02	46.30	7.54	15.45	—	44.00	20.28	1.11	0.15	74.32	0.45	539	96	
	3	22.98	20.39	8.90	7.17	—	12.60	17.58	2.21	0.79	26.26	—	473	87	
West Bengal	1	81.47	2.62	3.08	15.63	—	62.70	1.54	1.31	—	37.25	—	265	48	
	2	55.66	3.64	5.23	6.80	0.33	11.32	17.22	4.87	0.56	37.30	0.33	1261	203	
Orissa	1	5.50	33.88	15.70	5.20	—	5.73	1.07	29.36	1.88	22.12	0.12	1010	414	
Assam, Manipur and Tripura	1	28.99	14.81	—	—	—	—	—	0.21	—	43.59	—	135	40	
	2	34.69	6.14	6.97	15.21	0.77	2.01	9.35	3.67	0.07	45.72	2.96	353	96	

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (12) (Contd.): EXTENT, PURPOSES AND SOURCES OF DEBT

state	ALIE zone number	average size of households	average number of earners per household	percentage of indebted households	average size of indebted households	average number of earners per indebted household	average debt per household (Rs.)	debt per indebted household (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	1	4.21	2.29	77.43	4.43	2.36	196.78	254.25
	2	4.00	2.33	69.58	4.13	2.39	85.79	123.29
	3	4.08	2.55	61.29	4.31	2.66	94.28	153.84
Madras	1	3.98	2.16	70.12	4.22	2.24	100.00	142.61
Kerala	1	5.19	2.33	82.78	5.28	2.40	73.55	88.84
Bombay	1	4.51	2.55	45.77	4.85	2.62	40.30	88.05
	2	4.54	2.76	46.69	4.77	2.90	38.44	82.34
	3	3.85	2.40	34.49	4.29	2.63	30.92	89.66
	4	4.32	2.18	53.75	4.63	2.38	64.98	120.89
	5	3.86	2.09	46.69	4.11	2.17	22.36	47.89
	6	4.24	1.90	32.75	4.73	2.03	71.95	291.70
Mysore	1	4.52	2.39	55.06	4.97	2.60	102.09	185.41
	2	4.42	2.50	80.28	4.61	2.59	139.31	173.51
Rajasthan	1	4.21	2.06	61.16	4.72	2.37	197.20	322.45
	2	4.08	2.22	66.60	4.25	2.28	196.01	294.29
	3	3.72	2.03	67.14	4.22	2.30	248.25	369.77
	4	4.82	2.01	73.21	5.00	2.04	254.48	347.62
Punjab, Delhi and Himachal Pradesh	1	5.13	2.05	81.49	5.37	2.13	400.99	492.06
	2	5.18	2.11	75.63	5.42	2.16	258.40	341.67
Jammu and Kashmir	1	4.88	1.68	63.47	4.87	1.77	58.42	92.05

TABLE (12) (Contd.): EXTENT, PURPOSES AND SOURCES OF DEBT

distribution of debt (Rs.) per indebted household by														
source	ALE zone number	purpose					source					number of sample house-holds	number of sample villages	
		produc- tion	consum- ption	social	others	not recorded	em- players	shop- keepers	money lenders	co-opera- tive societies	others			not recorded
(1)	(2)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Andhra Pradesh	1	73.42	47.58	41.73	91.24	0.28	26.87	170.82	3.38	3.61	49.39	0.18	345	48
	2	57.20	25.47	25.63	14.91	0.08	8.95	27.39	3.58	3.49	78.97	0.91	984	144
	3	73.26	44.20	22.02	13.22	1.14	37.04	70.83	6.28	8.29	38.61	0.79	712	103
Madras	1	42.81	54.34	30.06	15.10	0.30	5.34	1.72	26.39	1.57	107.48	0.11	1626	242
Kerala	1	15.59	35.10	12.39	25.10	0.66	2.37	16.83	10.56	1.07	58.01	—	734	124
Bombay	1	33.74	24.81	19.31	9.89	0.30	3.07	14.79	7.05	7.99	54.67	0.48	647	96
	2	49.78	19.66	6.42	6.48	—	14.64	34.58	3.72	0.48	28.92	—	469	66
	3	18.97	33.37	33.56	1.93	1.83	16.53	35.82	4.27	3.00	30.04	—	375	56
	4	53.56	38.74	13.30	15.12	0.17	30.45	3.99	22.22	4.07	60.16	0.00	558	96
	5	20.82	14.23	11.03	1.72	0.09	3.20	12.42	4.74	8.01	19.14	0.38	231	50
	6	93.84	37.85	67.14	20.87	—	1.41	14.45	52.22	7.65	143.69	0.28	263	48
Mysore	1	89.18	40.86	24.98	27.72	2.67	4.00	54.89	12.49	12.21	95.41	6.41	488	69
	2	60.04	49.86	34.63	28.70	0.28	21.92	62.87	4.60	0.87	83.25	—	770	114
Rajasthan	1	140.99	136.04	26.60	17.61	1.21	12.01	101.17	56.59	1.88	149.33	1.47	145	48
	2	102.56	131.05	13.44	47.24	—	16.89	170.40	35.18	—	71.82	—	170	48
	3	56.90	189.22	106.28	16.77	0.60	1.75	307.62	3.37	1.71	54.72	0.60	156	48
	4	129.13	157.63	26.16	34.70	—	80.88	30.11	12.75	—	223.88	—	112	48
Punjab, Delhi and Himachal Pradesh	1	177.75	113.51	20.17	180.63	—	258.46	69.07	31.33	0.15	133.05	—	285	48
	2	139.72	114.47	27.03	60.28	0.17	117.94	51.66	38.14	9.87	122.61	1.45	701	144
Jammu and Kashmir	1	5.93	74.88	7.34	3.90	—	5.61	34.36	0.31	1.77	50.00	—	162	192

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LOBOUR

TABLE (13): PERCENTAGE DISTRIBUTION OF MANDAYS¹ WORKED BY CASUAL ADULT AGRICULTURAL LABOURERS BY MODE OF WAGE PAYMENT

state	ALE zone number	mode of wage payment			number of sample persons	number of sample house- holds	number of sample villages
		cash	kind	cash and kind			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Uttar Pradesh	1	26.55	70.52	2.93	1291	976	144
	2	45.92	48.96	5.12	1383	982	144
	3	47.00	44.27	8.73	1617	1454	240
	4	54.80	42.10	3.10	359	339	96
Madhya Pradesh	1	48.67	43.16	8.17	279	226	48
	2	39.59	52.13	8.28	432	291	48
	3	63.98	23.98	12.04	502	263	56
	4	30.43	65.95	3.62	338	245	48
	5	19.05	77.79	3.16	831	502	80
	6	30.11	62.08	7.81	377	295	48
Bihar	1	29.33	61.38	9.29	1264	1178	190
	2	19.19	80.20	0.61	486	539	96
	3	25.35	68.63	6.02	621	473	87
West Bengal	1	41.24	2.72	56.04	142	265	48
	2	51.57	12.86	35.57	1556	1261	203
Orissa	1	35.73	57.01	7.26	1447	1010	144
Assam, Manipur and Tripura	1	61.50	6.82	31.68	106	135	40
	2	70.75	14.94	14.31	239	353	96
Andhra Pradesh	1	33.41	56.30	10.29	618	345	48
	2	62.35	29.05	8.60	1770	984	144
	3	53.00	44.58	2.42	1028	712	103
Madras	1	57.21	35.97	6.82	2665	1626	242
Kerala	1	48.58	27.97	23.45	1252	734	124
Bombay	1	61.81	19.84	18.35	1210	647	96
	2	46.43	46.60	6.97	903	469	66
	3	72.91	25.13	1.96	611	375	56
	4	72.99	12.37	14.64	935	558	96
	5	46.49	23.40	30.11	361	231	50
	6	90.22	3.37	6.41	399	263	48
Mysore	1	51.26	42.00	6.74	894	488	69
	2	57.91	27.09	15.00	1329	770	114
Rajasthan	1	57.60	34.11	8.29	234	145	48
	2	62.27	27.99	9.74	265	170	48
	3	63.54	19.84	16.62	230	156	48
	4	63.17	25.87	10.96	133	112	48
Punjab, Delhi and Himachal Pradesh	1	53.99	43.35	2.66	157	285	48
	2	53.14	35.74	11.12	716	701	144
Jammu and Kashmir	1	34.77	38.22	27.01	35	162	192

¹ In calculating the percentages the working day of an adult female labourer has been taken at par with that of an adult male labourer.

APPENDIX I

A NOTE ON METHOD OF ESTIMATION AND RELIABILITY AND ADEQUACY OF ESTIMATES

METHOD OF ESTIMATION

1. The estimates presented in the report are those of ratios, e.g. average number of days employed per agricultural labourer, average daily wage etc. These estimates have been arrived at by computing in each case the ratio of the estimates of the totals for the two characteristics involved.

The estimate of the total for a characteristic in any region is given by

$$X = \sum_{i,j} M_{ij} \sum_{k=1}^{n_{ij}} x_{ijk}$$

the summation, $\sum_{i,j}$, being over all sample villages in the region.

In the above expression

x_{ijk} represents the total of the characteristic for the k -th sample agricultural labour household of the j -th sample village in the i -th stratum;

n_{ij} is the number of agricultural labour households surveyed from the j -th sample village in the i -th stratum;

M_{ij} is the multiplier for the j -th sample village in the i -th stratum which is given by

$$M_{ij} = \frac{1}{n_i} \frac{P_i}{P_{ij}} \frac{N_{ij}}{n_{ij}}$$

where n_{ij} is as stated above

N_{ij} is the total number of agricultural labour households in the j -th sample village in the i -th stratum;

P_{ij} is the population of the j -th sample village in the i -th stratum;

P_i is the rural population of the i -th stratum;

n_i is the number of sample villages in the i -th stratum.

RELIABILITY AND ADEQUACY OF ESTIMATES

2. The results given in this report are estimates based on a sample of a size much smaller than that of the population for which estimates have been made. The estimates, are, therefore, subject to sampling fluctuation and are expected to deviate from the population values. It is, therefore, desirable to have an idea about the magnitude of the sampling fluctuation of an estimate and the margin of uncertainty to be allowed for the estimate.

3. As mentioned in Chapter Two, the survey was conducted in four interpenetrating sub-samples providing four independent sets of estimates. Some idea about the reliability of estimates can be had by comparing the four sub-sample estimates. It is also possible to set up confidence limits with the sub-sample estimates. The minimum and the maximum of the four sub-sample estimates provide for the characteristic estimated, an 87.5 per cent confidence interval, that is, the probability of the true value of the characteristic being included between the two limits is 0.875.¹

4. The adequacy of an estimate based on a sample survey must, however, be assessed with reference to the purpose for which the estimate would be used and not merely on the basis of the sampling error. When the difference between two independent estimates is fairly large even then they would be adequate if the policy or administrative decisions would be the same in the case of either of the two independent estimates. This is the real criterion of adequacy for all practical purposes.

5. In the tables at the end of this appendix, sub-sample estimates are given for some important items for the regions for which results are presented in the report. The four interpenetrating sub-samples have an equal number of sample villages from each stratum. But as some of the regions for which estimates are given cut across the boundaries of the strata, in some cases the number of sample villages in a region is not the same for all the sub-samples. The distribution of sample villages of each sub-sample over different regions is given in Tables (E.1.0) and (E.2.0) of this appendix.

6. In Table (E) below, the minimum and the maximum of the four sub-sample estimates for all-India are given for 12 important items. As pointed out earlier, these two values provide the confidence limits for the characteristics estimated. As for example, in the case of average daily wage for all agricultural operations for casual adult male agricultural labourers [item 5(c)], the confidence limits are 0.94 and 0.98 rupees, that is, the probability of the true value being included between these two limits is 0.875.

¹ This is a non-parametric method of setting up confidence limits and does not involve any assumption regarding the form of the sampling distribution of the estimate. The only assumption required is that the mean of the sampling distribution of the estimate should coincide with the median, which is usually the case when the sample size is large. Generally, the magnitude of the sampling fluctuation of an estimate is measured by the standard error of the estimate and the confidence limits are set up with the help of the standard error by assuming the sampling distribution of the estimate to be 'normal'. But the calculation of standard error by the usual method even for a few items would be a heavy task with 72 strata and two-stage sampling.

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TABLE (E) : THE MINIMUM AND THE MAXIMUM OF THE FOUR SUB-SAMPLE ESTIMATES OF SOME SELECTED ITEMS FOR ALL INDIA

item	minimum	maximum	combined
(1)	(2)	(3)	(4)
1. proportion of agricultural labour households to total rural households	24.04	25.01	24.55
2. average number of persons per agricultural labour household	4.36	4.49	4.40
3. average number of agricultural workers per agricultural labour household	2.01	2.06	2.03
4. average number of days spent by an agricultural labourer during the year 1956-57 in			
(a) agricultural wage-employment	167.38	174.16	170.50
(b) self-employment	29.72	34.41	31.81
(c) unemployment	140.27	144.63	142.35
5. average daily wage (Rs.) of casual adult male agricultural labourers in			
(a) ploughing	0.93	1.06	1.00
(b) harvesting	0.91	0.96	0.93
(c) all agricultural operations	0.94	0.98	0.96
6. average annual income (Rs.) per agricultural labour household from			
(a) agricultural labour	264.20	301.19	281.08
(b) all sources	366.98	404.79	385.38
7. average debt (Rs.) per indebted agricultural labour household	131.60	143.21	138.18

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TABLE (E.1.0) : DISTRIBUTION OF SAMPLE VILLAGES AND SAMPLE HOUSEHOLDS
BY SUB-SAMPLE

region	number of sample villages					number of sample households				
	sub-sample					sub-sample				
	1	2	3	4	com- bined	1	2	3	4	com- bined
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Uttar Pradesh	156	156	156	156	624	965	920	940	926	3751
2. Madhya Pradesh	84	84	78	83	328	455	491	401	475	1822
3. Central Zone	239	240	234	239	952	1420	1411	1341	1401	5573
4. Bihar	93	92	95	93	373	556	527	545	562	2190
5. West Bengal	63	64	61	63	251	387	387	344	408	1526
6. Orissa	36	36	36	36	144	257	263	262	228	1010
7. Assam, Manipur and Tripura	34	34	34	34	136	149	141	103	95	488
8. Eastern Zone	226	226	226	226	904	1349	1318	1254	1293	5214
9. Andhra Pradesh	74	74	73	74	295	524	505	502	510	2041
10. Madras	59	61	62	60	242	382	423	412	409	1626
11. Kerala	31	30	29	34	124	168	193	188	185	734
12. Southern Zone	164	165	164	168	661	1074	1121	1102	1104	4401
13. Bombay	101	100	106	105	412	630	635	641	637	2543
14. Mysore	48	47	48	40	183	332	305	333	288	1258
15. Western Zone	149	147	154	145	595	962	940	974	925	3801
16. Rajasthan	48	48	48	48	192	125	145	156	157	583
17. Punjab, Delhi and Himachal Pradesh	48	48	48	48	192	240	249	247	250	986
18. Jammu and Kashmir	48	48	48	48	192	54	32	48	28	162
19. Northern Zone	144	144	144	144	576	419	426	451	435	1731
20. all India	922	922	922	922	3688	5224	5216	5122	5158	20720
21. Community Project Areas	335	333	338	332	1338	1854	1807	1829	1742	7232
22. other than C. P. Areas	587	589	584	590	2350	3370	3409	3293	3416	13488

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TABLE (E.1.1): PERCENTAGE OF AGRICULTURAL LABOUR HOUSEHOLDS TO TOTAL
RURAL HOUSEHOLDS BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	18.02	15.79	16.21	17.90	17.00
2. Madhya Pradesh	27.14	25.39	21.09	24.90	24.72
3. Central Zone	20.80	18.87	17.67	20.19	19.42
4. Bihar	31.48	28.87	29.08	28.41	29.44
5. West Bengal	25.33	25.75	20.08	27.18	24.35
6. Orissa	29.36	32.96	36.51	24.36	30.76
7. Assam, Manipur and Tripura	17.87	23.92	14.06	13.89	17.67
8. Eastern Zone	27.72	28.22	26.44	25.87	27.03
9. Andhra Pradesh	38.84	35.55	33.05	34.95	36.09
10. Madras	34.24	38.58	34.16	35.51	35.60
11. Kerala	21.64	27.73	31.27	19.63	24.87
12. Southern Zone	34.16	35.52	34.09	32.52	34.07
13. Bombay	26.43	25.09	26.35	26.35	26.06
14. Mysore	25.72	27.94	28.66	27.89	27.55
15. Western Zone	26.20	26.00	27.09	26.79	26.52
16. Rajasthan	6.07	4.82	5.22	5.69	5.45
17. Punjab, Delhi and Himachal Pradesh	10.86	10.54	13.95	11.04	11.61
18. Jammu and Kashmir	1.31	0.66	0.98	0.48	0.95
19. Northern Zone	7.95	7.11	9.21	7.90	8.04
20. all India	25.01	24.83	24.34	24.04	24.55
21. Community Project Areas	24.97	25.29	23.55	22.59	24.08
22. other than C. P. Areas	25.03	24.59	24.76	24.81	24.79

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TABLE (E.1.2) : AVERAGE NUMBER OF PERSONS PER AGRICULTURAL LABOUR
HOUSEHOLD BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	4.55	4.53	4.57	4.49	4.54
2. Madhya Pradesh	3.98	4.28	4.20	4.01	4.11
3. Central Zone	4.32	4.43	4.44	4.29	4.37
4. Bihar	4.80	5.02	5.15	4.87	4.97
5. West Bengal	4.43	4.46	4.23	4.37	4.37
6. Orissa	4.29	4.17	4.40	3.94	4.22
7. Assam, Manipur and Tripura	3.90	4.33	4.40	3.96	4.18
8. Eastern Zone	4.56	4.64	4.78	4.53	4.64
9. Andhra Pradesh	4.19	3.87	4.10	4.09	4.06
10. Madras	3.86	4.08	3.89	4.08	3.98
11. Kerala	5.12	5.03	5.01	5.70	5.19
12. Southern Zone	4.16	4.09	4.14	4.26	4.16
13. Bombay	4.24	4.39	4.39	4.11	4.28
14. Mysore	4.55	4.40	4.41	4.49	4.46
15. Western Zone	4.33	4.39	4.40	4.22	4.34
16. Rajasthan	4.16	3.67	4.16	4.42	4.11
17. Punjab, Delhi and Himachal Pradesh	5.07	5.04	5.30	5.19	5.16
18. Jammu and Kashmir	4.30	5.03	5.58	4.76	4.88
19. Northern Zone	4.74	4.61	5.03	4.96	4.85
20. all India	4.37	4.39	4.49	4.36	4.40
21. Community Project Areas	4.35	4.45	4.45	4.37	4.41
22. other than C. P. Areas	4.37	4.36	4.51	4.36	4.40

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.1.3): AVERAGE NUMBER OF AGRICULTURAL LABOURERS PER AGRICULTURAL LABOUR HOUSEHOLD BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	1.97	1.95	1.96	1.91	1.95
2. Madhya Pradesh	2.38	2.41	2.36	2.18	2.33
3. Central Zone	2.13	2.15	2.10	2.02	2.10
4. Bihar	1.74	1.92	1.89	1.87	1.85
5. West Bengal	1.58	1.58	1.40	1.51	1.52
6. Orissa	1.98	1.90	2.12	1.91	1.99
7. Assam, Manipur and Tripura	1.69	1.76	2.09	1.33	1.77
8. Eastern Zone	1.75	1.83	1.85	1.76	1.80
9. Andhra Pradesh	2.25	2.17	2.28	2.25	2.24
10. Madras	1.92	2.16	1.99	2.03	2.03
11. Kerala	2.02	1.93	2.05	1.99	1.99
12. Southern Zone	2.09	2.14	2.12	2.13	2.12
13. Bombay	2.31	2.34	2.27	2.22	2.28
14. Mysore	2.21	2.13	2.12	2.31	2.19
15. Western Zone	2.28	2.27	2.22	2.24	2.25
16. Rajasthan	1.95	1.89	1.79	2.18	1.96
17. Punjab, Delhi and Himachal Pradesh	1.66	1.77	1.76	1.75	1.74
18. Jammu and Kashmir	1.19	1.54	1.92	1.63	1.50
19. Northern Zone	1.76	1.80	1.77	1.88	1.80
20. all India	2.02	2.06	2.03	2.01	2.03
21. Community Project Areas	2.03	2.09	2.05	2.08	2.06
22. other than C. P. Areas	2.01	2.04	2.02	1.98	2.01

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TABLE (E.1.4): EMPLOYMENT (AVERAGE NUMBER OF DAYS) OF AGRICULTURAL
LABOURERS IN AGRICULTURAL WAGE EMPLOYMENT DURING THE
YEAR 1956-57 BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	163.39	141.50	142.59	141.08	148.09
2. Madhya Pradesh	164.32	179.61	198.45	170.90	176.77
3. Central Zone	163.80	159.93	164.90	154.25	160.60
4. Bihar	155.43	172.84	161.72	172.34	165.30
5. West Bengal	192.27	183.00	176.13	171.63	180.94
6. Orissa	147.32	145.91	136.51	122.74	139.22
7. Assam, Manipur and Tripura	232.19	225.54	288.55	172.77	239.86
8. Eastern Zone	165.22	172.79	165.19	162.53	166.34
9. Andhra Pradesh	161.97	182.06	195.42	187.89	181.46
10. Madras	162.52	165.90	153.70	153.35	159.04
11. Kerala	128.28	121.61	167.56	148.35	142.87
12. Southern Zone	158.73	168.82	175.22	170.03	168.42
13. Bombay	191.16	200.98	188.02	188.14	191.89
14. Mysore	172.35	169.36	189.85	171.51	176.24
15. Western Zone	185.42	190.78	188.62	183.03	186.67
16. Rajasthan	143.28	128.96	168.48	165.50	151.74
17. Punjab, Delhi and Himachal Pradesh	216.43	186.52	231.06	219.71	215.35
18. Jammu and Kashmir	144.87	249.13	188.14	204.12	190.33
19. Northern Zone	187.64	167.97	215.33	200.78	193.97
20. all India	167.38	172.07	174.16	168.22	170.50
21. Community Project Areas	166.90	165.17	166.67	170.91	167.38
22. other than C. P. Areas	167.90	176.12	177.88	166.79	172.23

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.1.5): EMPLOYMENT (AVERAGE NUMBER OF DAYS) OF AGRICULTURAL
LABOURERS IN SELF-EMPLOYMENT-DURING THE YEAR 1956-57
BY SUB-SAMPLE

region	sub-sample				combined
	1	2	3	4	
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	50.79	52.16	48.37	47.31	49.01
2. Madhya Pradesh	52.95	35.67	29.34	28.08	37.53
3. Central Zone	51.74	44.19	40.77	38.82	44.32
4. Bihar	23.01	34.11	26.73	27.70	27.64
5. West Bengal	23.03	28.44	23.94	18.76	22.94
6. Orissa	30.52	55.91	32.27	49.82	41.19
7. Assam, Manipur and Tripura	4.76	12.39	3.14	11.56	7.82
8. Eastern Zone	23.74	36.39	26.27	29.46	29.20
9. Andhra Pradesh	27.25	31.86	31.10	29.52	29.72
10. Madras	20.04	22.31	23.55	25.03	22.94
11. Kerala	36.87	26.61	16.62	29.14	26.07
12. Southern Zone	25.65	27.29	26.14	27.66	26.59
13. Bombay	25.42	28.63	28.60	29.16	28.16
14. Mysore	26.64	37.83	28.63	28.57	30.24
15. Western Zone	25.79	31.60	28.61	28.98	28.68
16. Rajasthan	30.46	40.54	28.79	50.80	38.06
17. Punjab, Delhi and Himachal Pradesh	29.01	48.62	55.14	33.90	42.76
18. Jammu and Kashmir	15.42	2.90	1.72	26.68	9.91
19. Northern Zone	29.46	45.67	48.21	39.75	41.19
20. all India	31.29	34.41	29.72	31.29	31.81
21. Community Project Areas	29.30	36.32	29.16	37.03	32.95
22. other than C. P. Areas	32.27	33.49	30.31	28.23	31.08

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TABLE (E.1.6): UNEMPLOYMENT (AVERAGE NUMBER OF DAYS) OF AGRICULTURAL LABOURERS DURING THE YEAR 1956-57 BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	123.89	142.41	146.57	153.04	141.31
2. Madhya Pradesh	129.07	132.40	122.92	141.80	131.93
3. Central zone	126.18	137.56	137.13	148.07	136.62
4. Bihar	154.13	144.29	157.14	137.74	149.12
5. West Bengal	89.82	118.58	110.66	117.93	109.50
6. Orissa	157.33	128.85	177.69	161.02	156.95
7. Assam, Manipur and Tripura	95.52	97.96	60.96	153.70	92.82
8. Eastern Zone	138.73	131.76	149.71	138.21	139.74
9. Andhra Pradesh	159.84	138.98	129.32	133.20	140.79
10. Madras	169.42	163.41	165.90	174.90	168.42
11. Kerala	186.95	202.71	172.12	177.83	184.59
12. Southern Zone	166.03	156.04	149.57	154.46	156.43
13. Bombay	132.22	121.70	133.36	133.18	129.83
14. Mysore	141.05	147.99	135.87	155.44	144.96
15. Western Zone	134.92	130.18	134.17	140.02	135.05
16. Rajsthan	169.05	150.92	144.07	126.56	147.56
17. Punjab, Delhi and Himachal Pradesh	107.25	111.22	71.98	90.72	92.18
18. Jammu and Kashmir	192.24	84.32	113.64	134.20	134.00
19. Northern Zone	131.77	124.12	90.04	103.38	111.07
20. all India	142.87	140.27	142.87	144.63	142.35
21. Community Project Areas	145.66	144.88	149.01	136.98	144.23
22. other than C. P. Areas	141.14	137.26	139.33	148.29	141.46

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.1.7) : AVERAGE DAILY WAGE (RUPEES) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS IN PLOUGHING BY SUB- SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	0.81	0.90	0.77	1.10	0.94
2. Madhya Pradesh	1.04	0.66	0.61	0.79	0.80
3. Central Zone	0.90	0.80	0.72	1.01	0.89
4. Bihar	0.99	0.93	0.96	0.84	0.94
5. West Bengal	1.41	1.60	1.47	1.28	1.43
6. Orissa	0.63	0.60	0.62	0.75	0.63
7. Assam, Manipur and Tripura	1.62	1.76	2.07	1.58	1.68
8. Eastern Zone	1.10	1.04	1.00	1.00	1.04
9. Andhra Pradesh	0.93	0.76	0.98	0.88	0.90
10. Madras	1.10	0.84	0.75	0.97	0.91
11. Kerala	1.47	1.14	1.18	1.49	1.30
12. Southern Zone	1.04	0.87	0.89	1.04	0.97
13. Bombay	1.00	1.02	0.85	1.02	0.97
14. Mysore	0.87	0.87	0.77	0.96	0.88
15. Western Zone	0.93	0.95	0.84	1.00	0.94
16. Rajasthan	1.10	0.50	0.86	1.14	1.08
17. Punjab, Delhi and Himachal Pradesh	2.39	1.87	2.39	1.68	2.08
18. Jammu and Kashmir	—	—	—	—	—
19. Northern Zone	1.92	1.86	2.15	1.52	1.82
20. all India	1.06	0.95	0.93	1.02	1.00
21. Community Project Areas	1.07	0.98	0.87	1.11	1.02
22. other than C. P. Areas	1.05	0.93	0.95	0.99	0.99

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TABLE (E.1.8) : AVERAGE DAILY WAGE (RUPEES) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS IN HARVESTING BY SUB-SAMPLE

region	sub-sample				combined
	1	2	3	4	
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	0.93	0.93	1.17	0.92	0.97
2. Madhya Pradesh	0.82	0.96	0.95	0.69	0.89
3. Central zone	0.90	0.94	1.10	0.89	0.94
4. Bihar	0.82	0.79	0.86	1.32	0.92
5. West Bengal	1.31	1.36	1.60	1.08	1.35
6. Orissa	0.95	0.63	0.80	0.80	0.81
7. Assam, Manipur and Tripura	1.29	1.86	1.83	1.69	1.46
8. Eastern Zone	1.07	0.88	1.07	1.13	1.03
9. Andhra Pradesh	0.79	0.82	0.82	0.82	0.81
10. Madras	0.81	0.82	0.77	0.84	0.81
11. Kerala	1.38	1.45	1.16	1.20	1.32
12. Southern Zone	0.81	0.86	0.81	0.83	0.83
13. Bombay	0.87	0.85	0.91	0.83	0.87
14. Mysore	0.76	0.70	0.80	0.83	0.77
15. Western Zone	0.83	0.80	0.87	0.83	0.84
16. Rajsthan	1.13	0.92	0.80	1.59	1.10
17. Punjab, Delhi and Himachal Pradesh	2.76	3.30	1.73	1.25	2.47
18. Jammu and Kashmir	—	0.65	—	—	0.65
19. Northern Zone	2.06	2.48	1.61	1.37	2.02
20. all India	0.93	0.91	0.96	0.93	0.93
21. Community Project Areas	1.02	0.96	0.94	1.08	1.00
22. other than C. P. Areas	0.90	0.88	0.97	0.84	0.90

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.1.9): AVERAGE DAILY WAGE (RUPEES) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS IN ALL AGRICULTURAL OPERATIONS BY SUB-SAMPLE

region	sub-sample				combined
	1	2	3	4	
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	0.92	0.90	0.90	0.95	0.92
2. Madhya Pradesh	0.80	0.79	0.72	0.74	0.76
3. Central Zone	0.88	0.85	0.82	0.88	0.86
4. Bihar	0.92	0.88	0.92	0.93	0.91
5. West Bengal	1.43	1.45	1.54	1.27	1.43
6. Orissa	0.86	0.72	0.79	0.80	0.80
7. Assam, Manipur and Tripura	1.44	1.68	1.45	1.60	1.54
8. Eastern Zone	1.08	1.04	1.09	1.04	1.06
9. Andhra Pradesh	0.86	0.83	0.92	0.86	0.87
10. Madras	0.95	0.76	0.85	0.78	0.84
11. Kerala	1.38	1.19	1.31	1.26	1.28
12. Southern Zone	0.95	0.85	0.96	0.88	0.91
13. Bombay	0.85	0.90	0.88	0.86	0.87
14. Mysore	0.78	0.89	0.85	0.83	0.84
15. Western Zone	0.82	0.90	0.87	0.85	0.86
16. Rajasthan	0.97	0.89	0.77	1.19	0.98
17. Punjab, Delhi and Himachal Pradesh	2.46	2.34	1.86	1.54	1.98
18. Jammu and Kashmir	1.17	0.84	1.47	1.17	1.09
19. Northern Zone	1.84	1.83	1.56	1.41	1.63
20. all India	0.97	0.94	0.98	0.94	0.96
21. Community Project Areas	0.98	0.99	0.96	0.98	0.98
22. other than C. P. Areas	0.96	0.92	0.99	0.92	0.95

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TABLE (E.1.10) : AVERAGE ANNUAL NET INCOME (RUPEES) PER AGRICULTURAL LABOUR HOUSEHOLD FROM AGRICULTURAL WAGE EMPLOYMENT BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	236.80	210.21	200.49	219.39	217.68
2. Madhya Pradesh	246.05	276.39	322.99	224.76	263.25
3. Central Zone	240.46	238.79	244.06	221.58	235.86
4. Bihar	226.77	293.02	269.42	283.70	266.95
5. West Bengal	377.42	401.35	379.74	306.53	364.75
6. Orissa	233.65	171.91	194.52	160.58	191.70
7. Assam, Manipur and Tripura	611.19	613.03	911.45	348.52	646.02
8. Eastern Zone	284.08	316.91	308.19	270.38	295.69
9. Andhra Pradesh	244.39	277.48	330.32	281.05	281.89
10. Madras	224.50	208.82	209.32	197.46	209.82
11. Kerala	271.13	242.44	363.38	314.36	300.67
12. Southern Zone	239.46	244.80	284.50	248.97	254.40
13. Bombay	312.39	354.23	329.07	306.29	325.01
14. Mysore	242.31	298.09	310.62	262.03	280.00
15. Western Zone	290.36	334.96	322.78	293.06	310.40
16. Rajasthan	221.13	205.91	221.20	352.67	250.94
17. Punjab, Delhi and Himachal Pradesh	664.08	599.21	625.46	507.89	598.91
18. Jammu and Kashmir	162.37	303.91	328.77	405.92	275.03
19. Northern Zone	504.34	473.65	524.65	460.72	492.29
20. all India	270.43	287.51	301.19	264.20	281.08
21. Community Project Areas	277.37	293.88	281.07	297.98	287.46
22. other than C. P. Areas	266.97	284.01	311.12	247.60	277.83

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.1.11): AVERAGE ANNUAL TOTAL NET INCOME (RUPEES) PER AGRICULTURAL LABOUR HOUSEHOLD BY SUB-SAMPLE

region	sub-sample				
	1	2	3	4	combined
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	369.66	344.55	344.52	339.87	354.74
2. Madhya Pradesh	326.98	356.44	417.81	320.66	350.86
3. Central Zone	352.90	360.22	370.56	332.19	352.88
4. Bihar	349.50	396.59	384.69	393.18	380.43
5. West Bengal	558.89	579.33	560.93	496.00	547.06
6. Orissa	347.62	271.76	299.70	260.12	296.49
7. Assam, Manipur and Tripura	765.22	755.26	984.85	506.54	777.52
8. Eastern Zone	420.09	438.98	432.39	401.22	423.67
9. Andhra Pradesh	324.14	336.26	409.50	357.16	355.08
10. Madras	284.92	269.47	278.86	244.07	269.25
11. Kerala	394.05	340.57	443.89	419.92	401.30
12. Southern Zone	316.26	309.22	360.34	315.72	325.08
13. Bombay	421.67	435.49	415.61	400.70	418.05
14. Mysore	388.60	398.96	408.91	354.50	389.73
15. Western Zone	411.30	422.71	413.02	386.92	408.87
16. Rajasthan	311.02	308.08	312.28	435.90	342.95
17. Punjab, Delhi and Himachal Pradesh	893.68	697.47	696.29	693.27	740.93
18. Jammu and Kashmir	225.83	392.96	437.94	476.77	356.63
19. Northern Zone	684.57	573.29	600.49	615.12	618.92
20. all India	383.43	385.51	404.79	366.98	385.38
21. Community Project Areas	389.89	403.00	386.63	399.89	394.58
22. other than C. P. Areas	380.18	375.88	413.70	350.79	380.70

TABLE (E.1.12) : AVERAGE AMOUNT OF DEBT (RUPEES) PER INDEBTED AGRICULTURAL LABOUR HOUSEHOLD BY SUB-SAMPLE

region	sub-sample				combined
	1	2	3	4	
(1)	(2)	(3)	(4)	(5)	(6)
1. Uttar Pradesh	145.10	130.61	154.39	172.91	151.42
2. Madhya Pradesh	104.80	94.43	104.17	85.38	68.75
3. Central zone	133.32	117.29	140.16	146.13	134.36
4. Bihar	141.88	138.92	187.10	118.11	150.21
5. West Bengal	86.44	93.01	63.68	56.05	74.41
6. Orissa	78.06	57.33	52.03	52.57	60.28
7. Assam, Manipur and Tripura	41.03	69.70	61.49	74.62	60.71
8. Eastern Zone	113.21	106.23	135.35	98.47	112.51
9. Andhra Pradesh	184.87	141.01	150.89	157.66	159.38
10. Madras	131.95	181.35	131.04	120.70	142.61
11. Kerala	126.76	70.91	63.07	107.05	88.84
12. Southern Zone	158.09	148.30	129.00	135.06	142.78
13. Bombay	85.12	89.36	90.05	118.57	95.17
14. Mysore	192.09	149.60	151.60	224.64	177.42
15. Western Zone	127.40	116.01	118.34	163.59	130.73
16. Rajasthan	375.01	198.30	364.31	370.04	325.36
17. Punjab, Delhi and Himachal Pradesh	407.11	396.74	419.72	309.85	381.82
18. Jammu and Kashmir	81.25	64.51	144.62	60.43	92.05
19. Northern Zone	396.07	333.35	404.09	324.85	364.70
20. all India	143.21	131.60	141.77	135.49	138.18
21. Community Project Areas	151.39	139.60	121.95	144.89	139.34
22. other than C. P. Areas	138.64	126.97	151.59	130.65	137.57

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.2.0): DISTRIBUTION OF SAMPLE VILLAGES AND SAMPLE HOUSEHOLDS
BY SUB-SAMPLE

state	ALE zone number	number of sample villages					number of sample households				
		sub-sample					sub-sample				
		1	2	3	4	com- bined	1	2	3	4	com- bined
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Uttar Pradesh	1	36	36	36	36	144	277	232	234	233	976
	2	36	36	36	36	144	254	230	256	242	982
	3	60	60	60	60	240	365	365	358	366	1454
	4	24	24	24	24	96	69	93	92	85	339
Madhya Pradesh	1	12	12	12	12	48	57	60	47	62	226
	2	12	12	12	12	48	75	71	79	66	291
	3	16	15	12	13	56	61	68	68	66	263
	4	12	12	12	12	48	65	80	41	59	245
	5	19	21	18	22	80	124	130	99	149	502
	6	12	12	12	12	48	73	82	67	73	295
Bihar	1	48	47	47	48	190	297	301	281	299	1178
	2	24	24	24	24	96	136	141	135	127	539
	3	21	21	24	21	87	123	85	129	136	473
West Bengal	1	12	12	12	12	49	73	64	47	81	265
	2	51	52	49	51	203	314	323	297	327	1261
Orissa	1	36	36	36	36	144	257	263	262	228	1010
Assam, Manipur and Tripura	1	10	10	10	10	40	44	26	42	23	135
	2	24	24	24	24	96	105	115	61	72	353
Andhra Pradesh	1	12	12	12	12	48	86	90	79	90	345
	2	36	36	36	36	144	255	239	246	244	984
	3	26	26	25	26	103	183	176	177	176	712
Madras	1	59	61	62	60	242	382	423	412	409	1626
Kerala	1	31	30	29	34	124	168	193	188	185	734
Bombay	1	24	24	24	24	96	174	174	148	151	647
	2	17	17	16	16	66	122	122	1106	119	469
	3	13	12	18	13	56	86	776	122	91	375
	4	24	24	24	24	96	132	134	153	139	558
	5	11	11	12	16	50	47	72	41	71	231
	6	12	12	12	12	48	69	57	71	66	263
Mysore	1	18	18	19	14	69	125	125	138	100	488
	2	30	29	29	26	114	207	180	195	188	770
Rajasthan	1	12	12	12	12	48	22	34	49	40	145
	2	12	12	12	12	48	51	50	32	37	170
	3	12	12	12	12	48	34	44	37	41	156
	4	12	12	12	12	48	18	17	38	39	112
Punjab, Delhi and Himachal Pradesh	1	12	12	12	12	48	67	73	74	71	285
	2	36	36	36	36	144	173	176	173	179	701
Jammu and Kashmir	1	48	48	48	48	192	54	32	48	28	162

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TABLE (E.2.1) : PERCENTAGE OF AGRICULTURAL LABOUR HOUSEHOLDS TO TOTAL
RURAL HOUSEHOLDS BY SUB-SAMPLE

state	ALE zone number	sub-sample					ALE Zones
		1	2	3	4	combined	
		(3)	(4)	(5)	(6)	(7)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Uttar Pradesh	1	27.36	22.53	19.95	23.10	23.23	
	2	18.16	17.07	17.80	16.20	17.33	
	3	16.56	11.98	12.13	17.60	14.63	
	4	8.60	13.92	19.48	12.86	13.45	
Madhya Pradesh	1	7.44	9.30	9.63	15.88	10.55	
	2	32.33	22.46	27.40	18.05	24.94	
	3	27.75	25.07	28.21	17.89	25.11	
	4	24.34	28.99	11.90	24.15	22.49	
	5	30.53	26.69	26.96	27.86	29.97	
	6	27.16	28.76	16.96	33.12	26.31	
Bihar	1	40.84	39.55	39.96	31.27	37.60	
	2	26.03	25.54	20.28	26.21	23.84	
	3	18.79	11.89	16.27	21.29	16.80	
West Bengal	1	29.67	41.46	21.77	29.34	30.61	
	2	24.93	24.06	19.94	26.95	23.74	
Orissa	1	29.36	32.96	36.51	24.36	30.76	
Assam, Manipur and Tripura	1	15.96	11.86	15.92	9.91	13.46	
	2	18.09	25.20	13.77	14.60	18.23	
Andhra Pradesh	1	32.77	33.91	32.95	34.34	33.49	
	2	46.96	45.62	39.13	39.06	42.71	
	3	30.89	24.81	30.11	29.86	28.67	
Madras	1	34.24	38.58	34.16	35.51	35.60	
Kerala	1	21.64	27.73	31.27	19.63	24.87	
Bombay	1	32.66	26.17	24.68	19.37	25.96	
	2	39.80	37.52	29.94	41.05	37.06	
	3	34.50	34.73	42.41	53.69	41.47	
	4	20.73	14.88	23.33	21.97	20.22	
	5	13.13	26.19	12.86	10.50	15.05	
	6	9.88	8.95	10.71	10.00	9.89	
Mysore	1	33.57	29.63	30.98	27.04	30.42	
	2	21.04	26.98	27.22	28.43	25.82	
Rajasthan	1	4.24	2.14	4.48	5.00	3.98	
	2	7.99	7.92	4.38	6.48	6.74	
	3	7.47	6.97	5.64	5.17	6.37	
	4	5.09	3.70	9.09	7.45	6.58	
Punjab, Delhi and Himachal Pradesh	1	14.25	14.51	16.23	15.73	15.12	
	2	9.92	9.47	13.47	10.04	10.77	
Jammu and Kashmir	1	1.31	0.66	0.98	0.48	0.95	

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.2.2): EMPLOYMENT (AVERAGE NUMBER OF DAYS) OF AGRICULTURAL LABOURERS IN AGRICULTURAL WAGE EMPLOYMENT DURING THE YEAR 1956-57 BY SUB-SAMPLE

state	ALE zone number	sub-sample					ALE Zones
		1	2	3	4	combined	
		(3)	(4)	(5)	(6)	(7)	
Uttar Pradesh	1	150.96	113.64	103.68	137.20	128.42	
	2	137.59	139.26	145.33	136.54	140.45	
	3	187.92	187.59	170.30	148.80	172.31	
	4	198.86	142.84	179.08	131.40	164.74	
Madhya Pradesh	1	183.99	179.87	232.46	163.61	186.32	
	2	184.30	166.40	224.15	138.94	182.69	
	3	212.14	227.52	114.99	200.95	200.03	
	4	100.14	178.59	180.88	140.04	145.96	
	5	154.16	159.36	192.04	157.29	163.86	
	6	198.07	216.84	213.64	259.69	221.83	
Bihar	1	161.86	208.32	163.81	176.84	176.21	
	2	123.74	119.45	155.15	180.04	144.98	
	3	183.10	118.88	164.60	138.26	154.28	
West Bengal	1	224.38	241.72	253.52	290.58	249.18	
	2	188.16	177.80	168.20	162.52	174.09	
Orissa	1	147.32	145.91	136.51	122.74	139.22	
Assam, Manipur and Tripura	1	208.01	222.03	205.07	178.09	204.82	
	2	237.71	225.87	270.68	171.33	245.49	
Andhra Pradesh	1	169.09	171.09	176.08	141.91	164.78	
	2	127.52	147.15	174.48	183.41	156.66	
	3	222.67	257.20	244.87	217.86	234.87	
Madras	1	162.52	165.90	153.70	153.35	159.04	
Kerala	1	128.28	121.61	167.56	148.35	142.87	
Bombay	1	191.18	220.36	209.69	161.45	198.89	
	2	223.09	171.83	178.91	186.06	190.52	
	3	208.68	244.99	189.80	200.66	207.84	
	4	147.24	169.90	189.53	205.49	178.70	
	5	195.67	166.15	112.35	151.06	157.38	
	6	96.59	189.42	155.71	159.60	143.10	
Mysore	1	230.73	178.93	222.02	201.14	210.26	
	2	112.84	163.45	168.24	154.18	151.97	
Rajasthan	1	132.52	171.51	124.09	152.32	143.36	
	2	134.86	94.73	160.38	187.25	137.14	
	3	175.67	160.10	264.08	158.85	187.91	
	4	117.26	181.05	135.42	177.24	150.93	
Punjab, Delhi and Himachal Pradesh	1	242.10	281.88	267.84	192.09	243.17	
	2	205.45	155.54	221.85	230.07	205.86	
Jammu and Kashmir	1	144.87	249.13	188.14	204.12	190.33	

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TABLE (E.2.3): AVERAGE DAILY WAGE (RUPEES) OF CASUAL ADULT MALE AGRICULTURAL LABOURERS IN ALL AGRICULTURAL OPERATIONS BY SUB-SAMPLE

state	ALE zone number	sub-sample					ALE Zones
		1	2	3	4	combined	
		(3)	(4)	(5)	(6)	(7)	
Uttar Pradesh	1	0.98	0.76	0.65	0.81	0.84	
	2	0.67	0.81	0.78	0.84	0.78	
	3	1.01	1.00	1.11	1.09	1.04	
	4	0.64	0.98	0.93	0.95	0.90	
Madhya Pradesh	1	0.83	0.97	1.26	0.68	1.03	
	2	1.00	0.96	0.84	0.73	0.90	
	3	0.66	1.02	0.67	0.90	0.86	
	4	0.83	0.67	0.55	0.62	0.67	
	5	0.76	0.69	0.69	0.71	0.71	
	6	0.76	0.70	0.61	0.89	0.73	
Bihar	1	0.88	0.83	0.88	0.94	0.88	
	2	1.07	1.15	1.02	0.90	1.04	
	3	0.95	1.09	0.92	0.92	0.97	
West Bengal	1	1.53	1.69	1.39	1.51	1.50	
	2	1.42	1.45	1.55	1.25	1.42	
Orissa	1	0.86	0.72	0.79	0.80	0.80	
Assam, Manipur and Tripura	1	1.57	2.12	1.77	1.74	1.76	
	2	1.42	1.65	1.36	1.56	1.50	
Andhra Pradesh	1	0.74	0.71	0.86	0.78	0.77	
	2	0.99	0.94	0.99	0.95	0.97	
	3	0.69	0.71	0.73	0.70	0.71	
Madras	1	0.95	0.76	0.85	0.78	0.84	
Kerala	1	1.38	1.19	1.31	1.26	1.28	
Bombay	1	0.87	0.80	0.78	0.89	0.83	
	2	0.72	0.68	0.70	0.72	0.70	
	3	0.70	0.99	0.92	0.73	0.85	
	4	0.87	1.15	0.96	1.05	1.00	
	5	1.34	1.00	1.07	1.07	1.12	
	6	1.63	1.30	1.53	1.29	1.42	
Mysore	1	0.74	0.81	0.82	0.79	0.79	
	2	0.87	0.96	0.88	0.87	0.90	
Rajasthan	1	0.72	0.76	0.89	0.92	0.84	
	2	0.93	0.80	0.61	0.80	0.82	
	3	0.99	0.94	0.65	1.16	0.91	
	4	4.19	3.32	1.37	2.34	2.37	
Punjab, Delhi and Himachal Pradesh	1	2.91	2.95	1.90	2.14	2.54	
	2	2.41	2.17	1.85	1.45	1.91	
Jammu and Kashmir	1	1.17	0.84	1.47	1.17	1.09	

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

TABLE (E.2.4): AVERAGE ANNUAL NET INCOME (RUPEES) PER AGRICULTURAL LABOUR HOUSEHOLD FROM AGRICULTURAL WAGE EMPLOYMENT
BY SUB-SAMPLE

state	ALE zone number	sub-sample					ALE Zones
		1	2	3	4	combined	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Uttar Pradesh	1	265.20	186.14	142.39	220.89	208.47	
	2	140.99	171.47	186.47	212.63	176.16	
	3	259.78	252.55	225.23	227.89	241.59	
	4	303.11	243.70	278.10	192.53	255.23	
Madhya Pradesh	1	260.30	358.94	487.76	246.89	327.02	
	2	291.80	306.18	453.22	193.46	321.49	
	3	312.52	450.77	159.23	367.05	337.73	
	4	124.82	198.00	216.29	153.03	168.77	
	5	232.98	252.82	288.26	200.05	238.51	
	6	303.73	305.46	303.71	340.63	315.46	
Bihar	1	216.99	306.18	257.66	279.37	263.32	
	2	209.96	270.06	284.53	333.63	272.62	
	3	296.21	259.03	311.65	229.14	276.01	
West Bengal	1	468.35	515.89	782.41	538.39	563.45	
	2	367.73	390.41	348.91	286.97	346.77	
Orissa	1	233.65	171.91	194.52	160.58	191.70	
Assam, Manipur and Tripura	1	875.15	1019.66	864.44	607.21	845.04	
	2	566.01	585.85	919.62	302.36	619.24	
Andhra Pradesh	1	256.85	245.45	255.13	194.52	237.62	
	2	233.23	259.37	344.78	330.38	287.93	
	3	260.63	334.23	349.49	248.78	297.12	
Madras	1	224.50	208.82	209.32	197.46	209.82	
Kerala	1	271.13	242.44	363.38	314.36	300.67	
Bombay	1	339.50	370.29	356.75	266.66	339.07	
	2	296.02	248.91	265.31	236.72	261.24	
	3	273.89	445.74	311.68	319.81	332.75	
	4	292.42	386.63	395.86	389.91	367.72	
	5	493.01	299.44	234.35	292.31	321.23	
	6	249.91	422.39	387.71	324.88	332.28	
Mysore	1	306.78	261.01	327.97	281.43	296.52	
	2	180.90	321.44	298.49	250.35	268.26	
Rajasthan	1	140.33	202.73	140.72	342.19	211.16	
	2	220.72	131.13	168.95	283.01	198.78	
	3	247.36	211.68	304.54	320.57	263.21	
	4	506.22	997.23	405.25	584.16	550.69	
Punjab, Delhi and Himachal Pradesh	1	730.02	840.91	750.75	607.75	732.33	
	2	637.69	498.81	594.15	474.47	553.83	
Jammu and Kashmir	1	162.37	303.91	328.77	405.92	275.03	

APPENDIX II

COMPOSITION OF ALE ZONES

- Uttar Pradesh :** Zone 1; 1. Azamgarh, 2. Banaras, 3. Basti, 4. Ballia, 5. Deoria, 6. Ghazipur, 7. Gorakhpur, 8. Jaunpur; Zone 2: 1. Barabanki, 2. Faizabad, 3. Fatehpur, 4. Hardoi, 5. Kanpur, 6. Lucknow, 7. Pratapgarh, 8. Rai Bareilly, 9. Sitapur, 10. Sultanpur, 11. Unnao. Zone 3; 1. Agra, 2. Aligarh, 3. Bahraich, 4. Bareilly, 5. Bijnor, 6. Budaun, 7. Bulandshahr, 8. Dehra Dun, 9. Etah, 10. Etawah, 11. Gonda, 12. Farukhabad, 13. Kheri, 14. Mainpuri, 15. Mathura, 16. Meerut, 17. Moradabad, 18. Muzaffarnagar, 19. Pilibhit, 20. Rampur, 21. Saharanpur, 22. Shahjahanpur. Zone 4; 1. Allahabad, 2. Banda, 3. Hamirpur, 4. Jalaun, 5. Jhansi, 6. Mirzapur, 7. Almora, 8. Garhwal, 9. Tehri Garhwal, 10. Nainital.
- Madhya Pradesh :** Zone 1; 1. Bhind, 2. Gird, 3. Morena, 4. Shivpuri; Zone 2; 1. Bhilsa, 2. Dewas, 3. Dhar, 4. Guna, 5. Indore, 6. Mandsaur, 7. Raisen, 8. Rajgarh, 9. Ratlam, 10. Sehroe, 11. Shajapur, 12. Ujjain. Zone 3; 1. Jhabua, 2. Nimar (M.P.), 3. Nimar (M.B.). Zone 4; 1. Betul, 2. Chindwara, 3. Hoshangabad, 4. Jubbulpore, 5. Mandla, 6. Saugar. Zone 5; 1. Balaghat, 2. Bastar, 3. Bilaspur, 4. Durg, 5. Raigarh, 6. Raipur, 7. Sarguja. Zone 6; 1. Chattarpur, 2. Datia, 3. Panna, 4. Rewa, 5. Satna, 6. Shahdol, 7. Sidhi, 8. Tikamgarh.
- Bihar :** Zone 1; 1. Champaran, 2. Darbhanga, 3. Monghyr-North, 4. Muzaffarpur, 5. Purnea, 6. Saharsha, 7. Saran. Zone 2; 1. Bhagalpur, 2. Gaya, 3. Monghyr-South, 3. Patna, 5. Shahabad. Zone 3; 1. Dhanbad, 2. Hazaribagh, 3. Palamau, 4. Ranchi, 5. Santal Para-ganas, 6. Singhbhum.
- West Bengal :** Zone 1: 1. Cooch Behar, 2. Darjeeling, 3. Jalpaiguri. Zone 2; 1. Bankura, 2. Birbhum, 3. Burdwan, 4. Hooghly, 5. Howrah, 6. Malda, 7. Midnapur, 8. Murshidabad, 9. Nadia, 10. Purulia, 11. West Dinajpur, 12. 24-Parganas.
- Orissa :** Zone 1; all districts.
- Assam, Manipur and Tripura :** Zone 1; 1. Abor Hills, 2. Balipara F. T., 3. Garo Hills, 4. Khasi and Jaintia Hills, 5. Lushai Hills, 6. Mikir and North Cachar Hills, 7. Mishmi Hills, 8. Naga Hills, 9. Naga Tribal Areas, 10. Trip F. T. Zone 2; 1. Cachar, 2. Darrang, 3. Goalpara, 4. Kamrup, 5. Lakhimpur, 6. Manipur, 7. Nowgong, 8. Sibsagar, 9. Tripura.
- Andhra Pradesh :** Zone 1; 1. Anantapur, 2. Chittoor, 3. Cuddapah, 4. Kurnool. Zone 2; 1. East Godavari, 2. Guntur, 3. Krishna, 4. Nellore, 5. Srikakulam, 6. Visakhapatnam, 7. West Godavari. Zone 3; 1. Adilabad, 2. Hyderabad, 3. Karimnagar, 4. Khammam, 5. Mahabubnagar, 6; Medak, 7. Nalgonda, 8. Nizambad, 9. Warangal.
- Madras :** Zone 1; all districts
- Kerala :** Zone 1 all districts.
- Bombay :** Zone 1; 1. Ahmednagr, 2. Dangs, 3. Khandesh East, 4. Khandesh West, 5. Nasik, 6. Poona, 7. Satara North, 8. Satara South, 9. Sholapur. Zone 2: 1. Aurangabad, 2. Bhir, 3. Nanded, 4. Osmanabad, 5. Parbhani. Zone 3; 1. Akola, 2. Amraoti, 3. Bhandara, 4. Buldana, 5. Chanda, 6. Nagpur, 7. Wardha, 8. Yeotmal. Zone 4: 1. Ahmedabad, 2. Amreli, 3. Banaskantha, 4. Baroda, 5. Broach, 6. Kaira, 7. Mehsana, 8. Panch Mahals, 9. Sabarnakantha, 10. Surat. Zone 5: 1. Kolaba, 2. Kolhapur, 3. Ratnagiri, 4. Thana, 5. Greater Bombay. Zone 6; 1. Madhya Saurashtra, 2. Gohilwad, 3. Halar, 4. Kutch, 5. Sorath, 6. Zalawad.
- Mysore :** Zone 1; 1. Belgaum, 2. Bidar, 3. Bijapur, 4. Dharwar, 5. Gulbarga, 6. North Kanara, 7. Raichur. Zone 2; 1. Bangalore, 2. Bellary, 3. Chickmagular, 4. Chitaldurg, 5. Coorg, 6. Hassan, 7. Kolar, 8. Mandya, 9. Mysore, 10. Shimoga, 11. South Kanara, 12. Tumkur.
- Rajasthan :** Zone 1; 1. Ajmer, 2. Alwar, 3. Bharatpur, 4. Bhilwara, 5. Jaipur, 6. Jhun-jhunu, 7. Sawai Madhopur, 8. Sikar, 9. Tonk. Zone 2; 1. Banswara, 2. Bhundi, 3. Chittorgarh, 4. Dungarpur, 5. Jhalwar, 6. Kotah, 7. Sirohi, 8. Udaipur. Zone 3; 1. Barmer, 2. Jaisalmer, 3. Jhalore, 4. Jodhpur, 5. Nagaur, 6. Pali. Zone 4; 1. Bikaner, 2. Churu, 3. Ganganagar.
- Punjab, Delhi and Himachal Pradesh :** Zone 1; 1. Barnala, 2. Bhatinda, 3. Kohistan, 4. Fatehgarh Sahib, 5. Kapur-thala, 6. Mohindergarh, 7. Patiala, 8. Sangrur. Zone 2; 1. Ambala, 2. Amritsar, 3. Bilaspur, 4. Chamba, 5. Delhi, 6. Ferozepur, 7. Gurudaspur, 8. Gurgaon, 9. Hissar, 10. Hoshiarpur, 11. Jullundur, 12. Kangra, 13. Karnal, 14. Ludhiana, 15. Mahashu, 16. Mandi, 17. Rohtak, 18. Simla, 19. Sirmoor.
- Jammu and Kashmir :** Zone 1; all districts.

FACSIMILE OF THE SCHEDULES OF INSTRUCTION

CENTRAL*
•STATE

ORIGINAL
DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY : 1956-57
Household Schedule 10.1 : Employment, Unemployment & Indebtedness of Agricultural
Labour Households

RURAL[†]
URBAN

(Eleventh Round)

[illegible]

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

sch. 10.1—3

[illegible]

1093 B K

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

sch. 10.1—3

[illegible]

sch. 10.1—6

[11] particulars of outstanding loan on the eve of reference period.....and loan taken during the 365 days preceding the date of survey.....																						
sr. no.	particulars of loan taken	outstanding loan on the eve of reference period						loan taken during 365 days preceding the date of survey										total				
		loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.	loan no.		loan no.	loan no.	loan no.	loan no.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
1.	month and year of taking loan																					
2.	source of loan (code)																					
3.	purpose of loan (code)																					
4.	type of loan : (in cash-1, in crop-2, others-3)																					
5.	loan taken with security or not (yes-1, no-2)																					
6.	security code, if with security																					
7.	any stipulated period of loan (yes-1, no-2)																					
8.	if yes: period (in months)																					
9.	amount in Rs. (imputed value if crop or others)																					
10.	" repaid during the reference period																					
11.	" outstanding on the date of survey (row 9—row 10)																					
12.	original amount of loan in Rs. (in case of outstanding loan)																					
13.	rate of interest p.a. per year (Rs. 0.00)																					
14.	type of interest (code)																					
15.	amount of interest paid during the year (Rs. 0.00)																					
16.	amount of interest paid in earlier years (Rs. 0.00)																					
17.	actual use of loan : type and amount (Rs): (i)																					
	(ii)																					
	(iii)																					
18.	mode of repayment : cash-1, crop-2, service-3, others-4																					
19.	source from which repayments made (code) (i)																					
	(ii)																					
20.	if source for repayment is a loan with security, security code																					

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

sch. 10.1--7

[12] receipt and disbursement account of self-cultivation of land during the last agricultural year, July 1955 to June 1956												
[12.1] receipts							[12.2] disbursements					
sr. no.	name of crop	area harvested (0.00 acres)	production (0.00 mds.)		farm price (Rs. 0.00) per mound at harvesting time		value (Rs. 0.00) of production at farm price			sr. no.	item	value (Rs. 0.00)
			crop	straw	crop	straw	crop	straw	total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(2)	(3)
1.										1.	land revenue and water charges	
2.										2.	rent	
3.										3.	hired animal labour charges	
4.										4.	human "	
5.										5.	perquisites disbursed	
6.										6.	seed charges	
7.										7.	manure charges	
8.										8.	implement charges	
9.										9.	cost of transport and storage	
10.										10.	other expenses connected with production	
11.	total gross receipts	×	×	×	×	×				11.	total expenses	

[12.3] net income = total gross receipts - total expenses = Rs.											
[12.4] net income from self employment in occupations other than farming during the last agricultural year, July 1955 to June 1956						[13] income of agricultural labour households during 30 days preceding the date of survey					
nature of self employment			cash value (Rs. 0.00)			sources of income			cash value of income (Rs. 0.00)		
sr. no.			receipts	expenses	income	sr. no.			cash	kind	total
(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
1.	transport					1.	agricultural wages				
2.	trade					2.	non-agricultural wages				
3.	construction					3.	cultivation of land				
4.	manufacture					4.	occupations other than farming				
5.						5.	other sources				
6.	total					6.	total				

sch. 10.1-8

③

[14] remarks by investigator

[15] comments by inspector

WAGES, EMPLOYMENT, INCOME, INDEBTEDNESS OF AGRICULTURAL LABOUR

CENTRAL
STATE

ORIGINAL*
DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY 1957

Household Schedule 10.1 : Employment, Unemployment & Indebtedness of Agricultural Labour Households

RURAL
URBAN

(Twelfth Round)

[illegible]

* delete whichever is inapplicable

sch. 10.1-2

[illegible]

[12] receipt and disbursement account of self-cultivation of land during the agricultural year, July 1955 to June 1956												additional space for remarks
[12.1] receipts						[12.2] disbursements						
sr. no.	name of crop	area harvested (0.00 acres)	production (0.00 mds.)	farm price per mds. at harvesting time	value (Rs. 0.00) of production at farm price	sr. no.	item	value (Rs. 0.00)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(2)	(3)
1.										1.	land revenue and watercharges	
2.										2.	rent	
3.										3.	hired animal labour charges	
4.										4.	human "	
5.										5.	perquisites disbursed	
6.										6.	seed charges	
7.										7.	manure charges	
8.										8.	implements charges	
9.										9.	cost of transport and storage	
10.										10.	other expenses connected with production	
11.	total gross receipts									11.	total expenses	
[12.3] net income = total gross receipts - total expenses = Rs.												
[13] net income from self-employment in occupations other than farming during the agricultural year, July 1955 to June 1956.												
sr. no.	nature of self-employment	cash value (Rs. 0.00)	receipts	expenses	income	sr. no.	source of income	description of source	cash value of income (Rs. 0.00)			
(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)			
1.	transport					1.	agricultural wages	×				
2.	trade					2.	non-agricultural wages and salaries					
3.	construction					3.	cultivation of land	×				
4.	manufacture					4.	occupations other than farming					
5.						5.	other sources					
6.	total					6.	total	×				

Sch. 10.1-4

particulars—outstanding loan on the eve of reference period.....and loan taken during the 365 days preceding the date of survey.....		loan taken during 365 days preceding the date of survey										loan taken during 365 days preceding the date of survey										total	
sr. no.	particulars of loan taken	outstanding loan on the eve of reference period										loan taken during 365 days preceding the date of survey										total	
		loan no. 1	loan no. 2	loan no. 3	loan no. 4	loan no. 5	loan no. 6	loan no. 7	loan no. 8	loan no. 9	loan no. 10	loan no. 11	loan no. 12	loan no. 13	loan no. 14	loan no. 15	loan no. 16	loan no. 17	loan no. 18	loan no. 19	loan no. 20	total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)				
1.	month and year of taking loan																						
2.	source of loan (code)																						
3.	purpose of loan (code)																						
4.	type of loan : (in cash-1, in crop-2, others-3)																						
5.	loan taken with security or not (yes-1, no-2)																						
6.	security code, if with security																						
7.	any stipulated period of loan (yes-1, no-2)																						
8.	if yes: period (in months)																						
9.	amount in Rs. (imputed value if crop or others)																						
10.	" repaid during the reference period																						
11.	" outstanding on the date of survey (row 9—row 10)																						
12.	original amount of loan in Rs. (in case of outstanding loans)																						
13.	rate of interest p.a. per year (Rs. 0.00)																						
14.	type of interest (code)																						
15.	amount of interest paid during the year (Rs. 0.00)																						
16.	amount of interest paid in earlier years (Rs. 0.00)																						
17.	actual use of loan : type and amount (Rs.): (i)																						
	(ii)																						
	(iii)																						
18.	mode of repayment : cash-1, crop-2, services-3, others-4																						
19.	source from which repayments made (code) (i)																						
	(ii)																						
20.	if source for repayment is a loan with security, security code																						

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PARTS 3 & 4

ESTIMATION BY TWO-MOMENTS METHOD FOR GENERALIZED POWER SERIES DISTRIBUTION AND CERTAIN APPLICATIONS

By G. P. PATIL*

Indian Statistical Institute

SUMMARY. In this paper, the 'Two-Moments Method' of estimation of the parameter of a generalized power series distribution is presented. The important properties of this method of estimation are discussed. Some special applications are studied.

1. INTRODUCTION

Let T be an arbitrary non-null subset of non-negative integers and define the generating function

$$f(\theta) = \sum_{x \in T} a_x \theta^x \quad \dots \quad (1.1)$$

with $a_x \geq 0$, $\theta \geq 0$, so that $f(\theta)$ is positive, finite and differentiable.

Then we can define a random variable X taking non-negative integral values in T with probabilities

$$P_x = \text{prob} \{X = x\} = \frac{a_x \theta^x}{f(\theta)} \quad x \in T \quad \dots \quad (1.2)$$

and call this distribution a generalized power series distribution (gpsd). We add here that we call the set of admissible values of the parameter θ of gpsd as the parameter space Θ of the gpsd. Also, we refer to set T of values of random variable X defined by the gpsd, as the range T of the gpsd.

The author (1959, 1961) has shown that the standard discrete distributions like the Binomial, Poisson, Negative Binomial and Logarithmic Series distributions can be obtained as special cases of the gpsd by proper choice of the range T and the generating function $f(\theta)$. The method of maximum likelihood for estimation on the basis of samples from gpsd's which are either complete, truncated or censored has also been discussed. In this paper, we suggest what we call "Two-Moments Method" for estimation of the parameter of the gpsd and investigate its important properties and study certain applications.

* Now with the McGill University.

2. ESTIMATION BY TWO-MOMENTS METHOD FOR A GPSD

Range T consisting of consecutive integers with positive probabilities. Consider the gpsd (1.2) with finite or infinite range $T = (c, c+1, \dots, d)$ with positive probabilities; that is, consider the gpsd

$$P_x = \text{prob} \{X=x\} = \frac{a_x \theta^x}{f(\theta)} \quad \dots (2.1)$$

where

$x \in T = (c, c+1, \dots, d)$, d finite or infinite

$$f(\theta) = \sum_{x=c}^d a_x \theta^x, \quad a_x > 0. \quad \dots (2.2)$$

For gpsd (2.1), it is easy to see that

$$\mu = \theta G_{01} + c P_c \quad \dots (2.3)$$

and

$$m_2 = \mu + \theta G_{11} + c(c-1)P_c \quad \dots (2.4)$$

where

$$G_{ij} = \sum_{x=c}^{d-1} x^i \left[\frac{(x+1)a_{x+1}}{a_x} \right]^j P_x. \quad \dots (2.5)$$

Further, from (2.3) and (2.4) we have

$$\frac{m_2 - \mu - \theta G_{11}}{\mu - \theta G_{01}} = c-1 \quad \text{when } c \neq 0 \quad \dots (2.6)$$

which when solved for θ gives the identity

$$\theta = \frac{m_2 - c\mu}{G_{11} - (c-1)G_{01}} \quad \text{when } c \neq 0. \quad \dots (2.7)$$

From (2.3), we have the identity

$$\theta = \frac{\mu}{G_{01}} \quad \text{when } c = 0. \quad \dots (2.8)$$

The identities (2.7) and (2.8) can be made use of in estimating θ . One has only to compute

$$S_i = \sum_{x=c}^d x^i n_x \quad i = 1, 2 \quad \dots (2.9)$$

and

$$g_{ij} = \sum_{x=c}^{d-1} x^i \left[\frac{(x+1)a_{x+1}}{a_x} \right]^j n_x \quad i = 0, 1; j = 1 \quad \dots (2.10)$$

from the sample, and then

$$t = \frac{S_2 - c S_1}{g_{11} - (c-1)g_{01}} \quad \text{when } c \neq 0 \quad \dots (2.11)$$

or

$$t = \frac{S_1}{g_{01}} \quad \text{when } c = 0, \quad \dots (2.12)$$

TWO-MOMENTS METHOD FOR GENERALIZED POWER SERIES DISTRIBUTIONS

can be taken as an estimate for θ . Because we use the first two moments for the estimation of the single parameter, we call the estimate t as "two-moments estimate" and the method as "two-moments method."

Proceeding along the same lines as Patil (1961) one gets to terms of order $\frac{1}{N}$,

$$b(t) = E(t) - \theta = \frac{1}{NG^2} (\theta\sigma_{22} - \sigma_{12}) \quad \dots (2.13)$$

$$\text{and} \quad \text{var}(t) = \frac{1}{NG^2} [\sigma_{11} - 2\theta\sigma_{12} + \theta^2\sigma_{22}] \quad \dots (2.14)$$

where

(i) for $c \neq 0$,

$$\begin{aligned} G &= G_{11} - (c-1)G_{01} \\ \sigma_{11} &= (m_4 - m_2^2) + c^2(m_2 - \mu^2) - 2c(m_3 - \mu m_2) \\ \sigma_{12} &= (G_{31} - m_2 G_{11}) - c(G_{21} - \mu G_{11}) - (c-1)(G_{21} - m_2 G_{01}) + c(c-1)(G_{11} - \mu G_{01}) \\ \sigma_{22} &= (G_{22} - G_{11}^2) + (c-1)^2(G_{02} - G_{01}^2) - 2(c-1)(G_{12} - G_{01} G_{11}) \end{aligned}$$

and

(ii) for $c = 0$,

$$\begin{aligned} G &= G_{01} \\ \sigma_{11} &= m_2 - \mu^2 \\ \sigma_{12} &= G_{11} - \mu G_{01} \\ \sigma_{22} &= G_{02} - G_{01}^2. \end{aligned}$$

3. ESTIMATION BY THE TWO-MOMENTS METHOD FOR A TRUNCATED GPSD*

Consider the gpsd (2.1) truncated to

$$T^* = (c, c+1, \dots, d), \quad d \neq d \text{ when } d \text{ finite.}$$

The truncated gpsd can be written as

$$P_x^* = \text{prob}\{X^* = x\} = \frac{a_x \theta^x}{f^*(\theta)} x \epsilon T^* \quad \dots (3.1)$$

where

$$f^*(\theta) = \sum_{x=c}^d a_x \theta^x. \quad \dots (3.2)$$

For this distribution it is easy to see that

$$\mu^* - \theta H_{01} = c P^* - (d+1) P_{d+1}^* \quad \dots (3.3)$$

and

$$m_2^* - \mu^* - \theta H_{11} = c(c-1) P_c^* - d(d+1) P_{d+1}^* \quad \dots (3.4)$$

where

$$H_{ij} = \sum_{x=c}^d x^i \left[\frac{(x+1)a_{x+1}}{a_x} \right]^j P_x^* \quad \dots (5.5)$$

* The work of this section was carried out while the author was at the University of Michigan.

For estimation purposes, we consider the following four mutually exclusive and exhaustive cases:

Case (1): $c = 0$ and $\dot{d}$ finite

Case (2): $c = 0$ and $\dot{d}$ infinite

Case (3): $c \neq 0$ and $\dot{d}$ infinite

Case (4): $c \neq 0$ and $\dot{d}$ finite.

Case (1): $c = 0$ and $\dot{d}$ finite. From (3.3) and (3.4), we have the identity

$$\theta = \frac{m_2^* - (\dot{d} + 1)\mu^*}{H_{11} - \dot{d}H_{01}} \quad \dots \quad (3.6)$$

which we utilize to estimate θ . We have only to compute

$$S_i = \sum x^i n_x \quad i = 1, 2 \quad \dots \quad (3.7)$$

and

$$h_{ij} = \sum_{x=c}^{\dot{d}} x^i \left[\frac{(x+1)a_{x+1}}{a_x} \right]^j n_x \quad i = 0, 1; j = 1 \quad \dots \quad (3.8)$$

from the sample and then
$$t^* = \frac{S_2 - (\dot{d} + 1)S_1}{h_{11} - \dot{d}h_{01}} \quad \dots \quad (3.9)$$

can be taken as an estimate for θ . The estimate t^* makes use of the (additional) information that the sample is taken from some known gpsd and truncated to the one under consideration. The estimate t of Section 2 above does not require, and hence, does not make use of this information. The formula for the bias and variance of t^* can be written down to order $1/N$ as :

$$b(t^*) = \frac{1}{NH^2} (\theta\sigma_{22}^* - \sigma_{12}^*) \quad \dots \quad (3.10)$$

and
$$\text{var}(t^*) = \frac{1}{NH^2} (\sigma_{11}^* - 2\theta\sigma_{12}^* + \theta^2\sigma_{22}^*) \quad \dots \quad (3.11)$$

where

$$H = H_{11} - \dot{d}H_{01}$$

$$\sigma_{11}^* = (m_4^* - m_2^{*2}) + (\dot{d} + 1)^2(m_2^* - \mu^{*2}) - 2(\dot{d} + 1)(m_3^* - \mu^*m_2^*)$$

$$\sigma_{12}^* = (H_{31} - m_2^*H_{11}) - (\dot{d} + 1)(H_{21} - \mu^*H_{11}) - \dot{d}(H_{21} - m_2^*H_{01}) + \dot{d}(\dot{d} + 1)(H_{11} - \mu^*H_{01})$$

$$\sigma_{22}^* = (H_{22} - H_{11}^2) + \dot{d}^2(H_{02} - H_{01}^2) - 2\dot{d}(H_{12} - H_{01}H_{11}).$$

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Case (2) and Case (3): $c = 0$, $\dot{d}$ infinite and $c \neq 0$, $\dot{d}$ infinite. It can be easily verified in these cases that

$$H_{ij} = G_{ij}$$

and, hence,

$$t^* = t.$$

Thus, we have the same treatment as in Section 2.

Here also, we observe that if we allow $\dot{d} = d$ —even when d is finite—and use $a_{d+1} = 0$ formally, we again get $H_{ij} = G_{ij}$ and $t^* = t$. This observation is specially important in the case of the binomial distribution.

Case (4): $c \neq 0$ and $\dot{d}$ finite. It may be noted that the t^* estimate is not available in this case. However, the t estimate still works, and the estimate of θ can thus be obtained by employing two-moments method.

4. AN UPPER BOUND FOR BIAS PER UNIT STANDARD ERROR FOR TWO-MOMENTS ESTIMATES

We first establish a general result true for the bias of an estimate of a certain type. Let the probability distribution, from which a sample $x_1, x_2, \dots, x_n$ is drawn, be a general distribution of a random variable X with a single parameter θ .

Let t_1 and t_2 be two statistics based on the sample such that

$$\frac{E(t_1)}{E(t_2)} = \frac{E[t_1(x_1, x_2, \dots, x_n)]}{E[t_2(x_1, x_2, \dots, x_n)]} = \theta$$

for all θ in the parameter space of the given distribution.

Consider the estimate $s = \frac{t_1}{t_2}$ to estimate θ . To find the bias in s per unit standard error of s , we have

$$\text{cov}(s, t_2) = E(st_2) - E(s)E(t_2) = E(t_1) - E(s)E(t_2) = [\theta - E(s)] E(t_2). \quad \dots (4.1)$$

$$\text{Now} \quad |\text{cov}(s, t_2)| \leq \sigma(s) \sigma(t_2) \quad \dots (4.2)$$

where σ denotes the standard error. Therefore, from (4.1) we have

$$\left| \frac{E(s) - \theta}{\sigma(s)} \right| \leq \left| \frac{\sigma(t_2)}{E(t_2)} \right| = |\text{c.v.}(t_2)| \quad \dots (4.3)$$

where $\text{c.v.}(t_2)$ is the coefficient of variation of t_2 . Thus, for the bias in s we have

$$\left| \frac{b(s)}{\sigma(s)} \right| \leq |\text{c.v.}(t_2)|. \quad \dots (4.4)$$

In particular, when t_2 is a constant, we have an unbiased estimate for θ .

It may be noted that two-moments estimates for the parameter θ of gpsd's, which we discussed earlier, are estimates of the actual type of the estimate s that we have discussed in this section. Hence, the result in (4.4) also applies to them.

5. ESTIMATION BY THE TWO-MOMENT METHOD FOR SINGLY TRUNCATED BINOMIAL DISTRIBUTION

Fisher (1936) and Haldane (1932, 1938) discussed uses of the truncated binomial distribution. For instance, in problems of human genetics, in estimating the proportion of albino children produced by couples capable of producing albinos, sampling has necessarily to be restricted to families having at least one albino child. Finney (1949) has cited some more applications. Fisher and Haldane derived the maximum likelihood procedure to estimate the parameter π . Patil (1959) gave a direct method to obtain the maximum likelihood estimate. Moore (1954) suggested a simple "ratio-estimate" based on an identity between binomial probabilities. For a slightly different problem, where, in a sample from a complete binomial distribution, the frequencies in some lowest classes are missing, Rider (1955) suggested a method of estimation, which uses first two moments of the complete binomial and leads to a linear equation.

The probability law of the binomial distribution truncated at c on the left can be written as

$$b^*(x, \pi, n) = (B^*(c, \pi, n))^{-1} \binom{n}{x} \pi^x (1-\pi)^{n-x} \quad x = c, c+1, \dots, n \quad \dots (5.1)$$

$$\text{where} \quad B^*(c, \pi, n) = \sum_{x=c}^n \binom{n}{x} \pi^x (1-\pi)^{n-x}. \quad \dots (5.2)$$

The first two moments about the origin of (5.1), then, are

$$\mu^* = \mu^*(c, \pi, n) = n\pi B^*(c-1, \pi, n-1)/B^*(c, \pi, n) \quad \dots (5.3)$$

$$\text{and} \quad m_2^* = m_2^*(c, \pi, n) = \mu^*(c, \pi, n)\{1 + \mu^*(c-1, \pi, n-1)\}. \quad \dots (5.4)$$

The case of truncation to the right can be dealt with in a similar way by replacing π by $1-\pi$ and the truncation point c by $n-c$.

Proceeding on lines in Section 3, one gets in this case

$$\theta = \frac{\pi}{1-\pi} = \frac{m_2^* - c\mu^*}{H_{11} - (c-1)H_{01}} \quad \dots (5.5)$$

where μ^* and m_2^* are defined by (5.3) and (5.4) respectively, and H_{11} and H_{01} reduce to

$$H_{11} = n\mu^* - m_2^*$$

$$H_{01} = n - \mu^*$$

then (5.5) gives

$$\pi = \frac{m_2^* - c\mu^*}{(n-1)\mu^* - n(c-1)} \quad \dots (5.6)$$

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so that, on the basis of a random sample of size N with n_x as the frequency of x drawn from (5.1), the estimate for π can be written as

$$t = \frac{S_2 - cS_1}{(n-1)S_1 - n(c-1)N} \quad \dots \quad (5.7)$$

where

$$S_1 = \sum x n_x$$

and

$$S_2 = \sum x^2 n_x.$$

It is obvious that (5.7) is quite simple. On the other hand, the estimate obtained from (5.7) is likely to be inefficient. It is important, therefore, to investigate the loss in efficiency due to the use of (5.7) instead of the maximum likelihood estimate.

To find the asymptotic variance of the two-moments estimate t of π , one gets on some simplification

$$\text{var } (t) = \frac{1}{NH^2} (\sigma_{11}^* + \pi^2 \sigma_{22}^* - 2\pi \sigma_{12}^*) \quad \dots \quad (5.8)$$

where

$$H = (n-1)\mu^* - n(c-1)$$

$$\sigma_{11}^* = (m_4^* - m_2^{*2}) + c^2(m_2^* - \mu^{*2}) - 2c(m_3^* - \mu^* m_2^*)$$

$$\sigma_{22}^* = (n-1)^2(m_2^* - \mu^{*2})$$

and

$$\sigma_{12}^* = (n-1)(m_3^* - \mu^* m_2^*) - c(m_2^* - \mu^{*2})$$

where m_r^* is the r -th theoretical moment of (5.1) about the origin. Thus,

$$\text{var } (t) = \frac{1}{N\{(n-1)\mu^* - n(c-1)\}^2} [(m_4^* - m_2^{*2}) + \{(n-1)\pi + c\}^2 (m_2^* - \mu^{*2}) - 2\{(n-1)\pi + c\}(m_3^* - \mu^* m_2^*)]. \quad \dots \quad (5.9)$$

The asymptotic efficiency of t is then given by

$$\text{eff } (t) = \text{var } (\hat{\pi}) / \text{var } (t) \quad \dots \quad (5.10)$$

where $\hat{\pi}$ is the maximum likelihood estimate of π with variance given by

$$\text{var } (\hat{\pi}) = \frac{[\pi(1-\pi)]^2}{N\mu_2^*} \quad \dots \quad (5.11)$$

where μ_2^* is the variance of (5.1).

The special cases of some importance in genetics are $c = 1$ and $\pi = 1/4, 1/2$, or $3/4$. The efficiency of the Two-Moments Estimate (TM) relative to the Maximum Likelihood (ML) in these cases is tabulated below.

TABLE 1. ASYMPTOTIC EFFICIENCY
OF TM FOR $c = 1$

n	efficiency		
	$\pi = 1/4$	$1/2$	$3/4$
3	.925	.875	.875
4	.871	.818	.859
5	.817	.795	.870
6	.809	.789	.886
7	.781	.794	.901
8	.766	.803	.913
9	.755	.814	.923
10	.749	.823	.931

General examination of the table shows that TM is fairly efficient in the cases cited. A closer look shows that the efficiency of TM in case of $\pi = 1/2$ and $\pi = 3/4$ decreases in the beginning with n , reaches a minimum and then increases with increasing values of n . For $\pi = 1/4$, however, the efficiency decreases throughout. Let us compute, therefore, the efficiency of TM for higher values of n . The following gives the results obtained for $n = 11(1)15$.

ASYMPTOTIC EFFICIENCY OF TM
FOR $c = 1$ AND $\pi = 1/4$

n	efficiency
11	.746
12	.744
13	.745
14	.747
15	.750

Thus, in case of $\pi = 1/4$ also, the efficiency reaches a minimum and then increases with increasing n . It is interesting to note that in all these cases the efficiency of TM has reached the minimum at $n = 3/\pi$.

Following Section 3, one gets to order $1/N$, the amount of bias of $t(\text{TM})$ as follows for $c = 1$:

$$b(t) = \frac{1}{N} \frac{\mu_2^{*2} + \mu^* m_2^* - m_3^*}{(n-1)\mu^{*2}} = \frac{B(t)}{N} \quad \dots (5.12)$$

The table given below provides the value of $B(t)$ for $\pi = 1/4, 1/2$ and $3/4$.

TABLE 2: N (AMOUNT OF BIAS TO ORDER $1/N$)
OF TM

n	$\pi = 1/4$	$1/2$	$3/4$
3	-.2412	-.2717	-.1763
4	-.2152	-.1940	-.1290
5	-.1896	-.1748	-.1004
6	-.1715	-.1398	-.0818
7	-.1535	-.1230	-.0689
8	-.1379	-.1063	-.0595
9	-.1187	-.0934	-.0524
10	-.1097	-.0748	-.0468

Table 2 shows that the amount of bias of two-moments estimate is rather small and one need not worry much about it, especially when one knows that the maximum likelihood estimate is also a biased one.

Illustrative example. The detailed computation procedure of evaluating the two-moments estimate discussed above will be illustrated with reference to K. Pearson's data on albinism in man. The table below gives the number of families (n_x) each of five children having exactly x albino children in the family, ($x = 1, 2, 3, 4, 5$).

number of albinos in family (x)	1	2	3	4	5
number of families (n_x)	25	23	10	1	1

TWO-MOMENTS METHOD FOR GENERALIZED POWER SERIES DISTRIBUTIONS

If π is the probability for a child to be an albino, we may accept the truncated binomial model :

$$\frac{\binom{n}{x}\pi^x(1-\pi)^{n-x}}{1-(1-\pi)^n} \quad x = 1, 2, \dots, n,$$

for the probability of x albinos in a family of n . Here $n = 5$, and the problem is to estimate π on the basis of the data given in the table above.

To compute the two-moments estimate for π , we require $S_1 = \sum x n_x = 110$ and $S_2 = \sum x^2 n_x = 248$. Then the estimate is

$$\begin{aligned} t &= \frac{1}{n-1} \left[\frac{S_2}{S_1} - 1 \right] \\ &= \frac{1}{4} \left[\frac{248}{110} - 1 \right] = 0.3136. \end{aligned}$$

To compute the variance of t we require

$$\mu^* = \frac{n\pi}{1-(1-\pi)^n} = 1.95280$$

$$m_2^* = \mu^*[(n-1)\pi + 1] = 4.40239$$

$$m_3^* = \mu^*[(n-1)\pi + 1 + (n-1)\pi\{(n-2)\pi + 2\}] = 11.60615$$

$$\begin{aligned} m_4^* &= \mu^*[(n-1)\pi + 1 + 3(n-1)\pi\{(n-2)\pi + 2\} + (n-1)\pi \cdot (n-2)\pi\{(n-3)\pi + 3\}] \\ &= 32.06830 \end{aligned}$$

all evaluated by taking 0.3136 as the estimate for π . The variance of t is estimated from the formula

$$\begin{aligned} \text{var}(t) &= \frac{1}{N\{(n-1)\mu^*\}^2} (m_4^* - m_2^{*2}) + \{(n-1)\pi + 1\}^2 (m_2^* - \mu^{*2}) - 2\{(n-1)\pi + 1\} (m_3^* - \mu^* m_2^*) \\ &= 0.0012066 \end{aligned}$$

so that the standard error is $\text{S.E.}(t) = 0.03474$. Incidentally, the maximum likelihood estimate $\hat{\pi}$ comes out to be in this case, $\hat{\pi} = 0.3088$ with $\text{S.E.}(\hat{\pi}) = 0.03210$.

6. ESTIMATION BY THE TWO-MOMENTS METHOD FOR SINGLY TRUNCATED POISSON DISTRIBUTION

Problems of estimation in a truncated Poisson distribution with known truncation points have been discussed by various authors. The case of truncation on the left has been considered by David and Johnson (1948) who gave the maximum likelihood estimate; Plackett (1953) gave a simple and highly efficient ratio-estimate, and Rider (1953) used the first two moments. Truncation on the right has been discussed by Tippet (1932), Bliss (1948), and Moore (1952). Tippet derived the maximum likelihood solution, Bliss developed an approximation to it, and Moore suggested

a simple ratio estimate. For both types of truncations, the author (1959) has provided neat and compact equations for estimation by the method of maximum likelihood. He has also presented numerical tables and some suitable charts to facilitate the solution of these equations in certain special cases. In this section, we study the Two-Moments Method of estimation as applied to singly truncated Poisson distributions.

The probability law of the singly truncated Poisson distribution with truncation point on the right at d can be written as :

$$p^*(x, \mu) = [p(d, \mu)]^{-1} e^{-\mu} \frac{\mu^x}{x!} \quad x = 0, 1, 2, \dots, d \quad \dots (6.1)$$

where

$$p(d, \mu) = \sum_{x=0}^d e^{-\mu} \frac{\mu^x}{x!} \quad \dots (6.2)$$

The first two moments about the origin of (6.1) can be written down as

$$\mu^* = \mu^*(d, \mu) = \mu p(d-1, \mu) / p(d, \mu) \quad \dots (6.3)$$

and

$$m_2^* = m_2^*(d, \mu) = \mu^*(d, \mu) [1 + \mu^*(d-1, \mu)]. \quad \dots (6.4)$$

Proceeding as in Section 3, one gets in this case

$$\theta = \mu = \frac{m_2^* - (d+1)\mu^*}{H_{11} - dH_{01}} \quad \dots (6.5)$$

where μ^* and m_2^* are defined by (6.3) and (6.4), respectively, and H_{11} and H_{01} reduce to

$$H_{11} = \mu^*$$

$$H_{01} = 1.$$

Then (6.5) gives

$$\mu = \frac{m_2^* - (d+1)\mu^*}{\mu^* - d} \quad \dots (6.6)$$

so that, on the basis of a random sample of size N with n_x as the frequency of x drawn from (6.1), the two-moments estimate for μ becomes

$$t = \frac{S_2 - (d+1)S_1}{S_1 - dN}, \quad \dots (6.7)$$

where

$$S_1 = \sum x n_x \quad \text{and} \quad S_2 = \sum x^2 n_x.$$

To find the asymptotic variance of the two-moments estimate (TM) given by (6.7) one gets on simplification,

$$\text{var}(t) = \frac{1}{NH^2} (\sigma_{11}^* + \mu^2 \sigma_{22}^* - 2\mu \sigma_{12}^*) \quad \dots (6.8)$$

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where

$$H = \mu^* - d$$

$$\sigma_{11}^* = (m_4^* - m_2^{*2}) + (d+1)^2(m_2^* - \mu^{*2}) - 2(d+1)(m_3^* - \mu^*m_2^*) \dots \quad (6.9)$$

$$\sigma_{22}^* = m_2^* - \mu^{*2}$$

$$\sigma_{12}^* = (m_3^* - \mu^*m_2^*) - (d+1)(m_2^* - \mu^{*2})$$

where m_r^* is the r -th theoretical moment of (6.1) about origin.

Thus

$$\text{var}(t) = \frac{1}{N(\mu^* - d)^2} [(m_4^* - m_2^{*2}) + (\mu + d + 1)^2(m_2^* - \mu^{*2}) - 2(\mu + d + 1)(m_3^* - \mu^*m_2^*)] \dots \quad (6.10)$$

The asymptotic efficiency of t is then given by

$$\text{eff}(t) = \text{var}(\hat{\mu}) / \text{var}(t) \dots \quad (6.11)$$

where $\hat{\mu}$ is the maximum likelihood estimate of μ with variance given by

$$\text{var}(\hat{\mu}) = \frac{\mu^2}{N\mu_2^*} \dots \quad (6.12)$$

where μ_2^* is the variance of (6.1).

The following table gives the asymptotic efficiency of t relative to $\hat{\mu}$ for values of $d = 5$ with $\mu = .25, .5(.5)2.5$, and $d = 10$ with $\mu = .5(.5)5$.

TABLE 3. EFFICIENCY OF TM

μ	.25	.50	1.00	1.50	2.00	2.50
Case (i) $d = 5$						
eff	.978	.954	.904	.867	.850	.838

μ	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Case (ii) $d = 10$										
eff	.989	.988	.960	.942	.920	.897	.874	.855	.835	.815

Thus, the asymptotic efficiency of TM is not less than 80 per cent in the above cases, and one may therefore use TM to estimate μ in such problems.

The amount of bias, to order $1/N$, of the TM comes out to be

$$b(t) = (\mu \sigma_{22}^* - \sigma_{12}^{*2}) / NH^2 = \frac{B(t)}{N} \dots \quad (6.13)$$

where H , σ_{22}^* and σ_{12}^* are defined by (6.9). The following table gives $B(t)$ for values of $d = 5$ with $\mu = .25, .5(.5)2.5$ and $d = 10$ with $\mu = .5(.5)5$.

TABLE 4. N (AMOUNT OF BIAS TO ORDER $1/N$ OF TM)

μ	.25	.50	1.00	1.50	2.00	2.50
Case (i) $d = 5$						
$B(t)$	.0526	.1111	.2498	.4260	.6507	.9181

μ	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Case (ii) $d = 10$										
$B(t)$	.0526	.1111	.1765	.2500	.3333	.4284	.5547	.6640	.8093	.9786

Examination of Table 4 shows that the amount of bias involved in TM is rather very small.

The probability law of the singly truncated Poisson distribution with truncation point on the left at c can be written as

$$p^*(x, \mu) = [P^*(c, \mu)]^{-1} e^{-\mu} \frac{\mu^x}{x!} \quad x = c, c+1, \dots, \infty \quad \dots (6.14)$$

where

$$P^*(c, \mu) = \sum_{x=c}^{\infty} e^{-\mu} \frac{\mu^x}{x!} \quad \dots (6.15)$$

The first two moments about origin of (6.14) can be written down as

$$\mu^* = \mu^*(c, \mu) = \mu P^*(c-1, \mu) / P^*(c, \mu) \quad \dots (6.16)$$

and

$$m_2^* = m_2^*(c, \mu) = \mu^*(c, \mu) [1 + \mu^*(c-1, \mu)]. \quad \dots (6.17)$$

For a slightly different problem, where in a sample from a complete Poisson distribution, the frequencies for some lowest "counts" are missing, Rider (1953) suggested a method of estimation which uses first two moments of the complete Poisson and leads to a linear equation.

The Two-Moments Method discussed in Section 3 gives the estimate for μ in this case as

$$t = \frac{S_2 - cS_1}{S_1 - (c-1)N} \quad \dots (6.18)$$

where

$$S_1 = \sum_{i=1}^N x_i \quad \text{and} \quad S_2 = \sum_{i=1}^N x_i^2$$

are based on the random sample $x_i (i = 1, 2, \dots, N)$ of size N drawn from (6.14).

To find the asymptotic variance of t , one gets on simplification,

$$\text{var}(t) = \frac{1}{N[\mu^* - (c-1)]^2} [(m_4^* - m_2^{*2}) + (\mu + c)^2(m_2^* - \mu^{*2}) - 2(\mu + c)(m_3^* - \mu^*m_2^*)] \quad \dots (6.19)$$

where m_r^* is the r -th moment of (6.14) about origin.

The asymptotic efficiency of t is then given by

$$\text{eff}(t) = \text{var}(\hat{\mu}) / \text{var}(t)$$

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where $\hat{\mu}$ is the maximum likelihood estimate of μ with

$$\text{var}(\hat{\mu}) = \frac{\mu^2}{N\mu_2^*} \quad \dots (6.20)$$

where μ_2^* is the variance of (6.14).

The case of single truncation on the left at $c = 1$ is of practical importance. David and Johnson (1952) studied the efficiency for this particular case. The following is the table of $\text{eff}(t)$ computed by them.

TABLE 5. EFFICIENCY OF TM FOR $c = 1$

μ	.5	1.0	1.5	2.0	2.5	3.0	4.0
eff.	.87	.80	.75	.73	.71	.71	.72

Source : David and Johnson (1952).

Thus, the efficiency of TM is not less than 70 per cent for $c = 1$ with $\mu = .5(.5)4.0$.

One gets to order $1/N$ the amount of bias of t (TM) as follows :

$$b(t) = (\mu\sigma_{22}^* - \sigma_{12}^*)/NH^2 = \frac{B(t)}{N} \quad \dots (6.21)$$

where

$$\begin{aligned} H &= \mu^* - (c-1) \\ \sigma_{22}^* &= m_2^* - \mu^{*2} \\ \sigma_{12}^* &= (m_3^* - \mu^*m_2^*) - c(m_2^* - \mu^{*2}). \end{aligned} \quad \dots (6.22)$$

The following table gives $B(t)$ for $\mu = .5(.5)4.0$.

TABLE 6. N (AMOUNT OF BIAS TO ORDER $1/N$ OF TM) FOR $c = 1$.

μ	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
$B(t)$	-.3935	-.6321	-.6373	-.8647	-.9147	-.9502	-.9698	-.9817

Illustrative example. The detailed computation procedure of evaluating the TM is illustrated with reference to data collected by Varley (1949) to study population balance in the Knapweed Gall-fly. The table below gives the number of flower-heads (n_x) each having exactly x gall-cells ($x = 1, 2, \dots$).

number of gall-cells in a flower-head (x)	1	2	3	4	5	6	7	8	9	10
number of flower heads (n_x)	287	272	196	79	29	20	2	0	1	0

Assuming the truncated Poisson model

$$\frac{\mu^x}{x!(e^\mu - 1)} \quad x = 1, 2, \dots$$

for the probability of x gall-cells in a flower-head, the problem is to estimate μ on the basis of the given data.

We have $S_1 = 2023$, $S_2 = 6027$, $N = 886$. Therefore the TM is

$$t = \frac{S_2}{S_1} - 1 = \frac{6027}{2023} - 1 = 1.9792.$$

To compute the variance of t , taking 1.9792 as the estimate for μ , we have

$$\mu^* = \frac{\mu e^\mu}{e^\mu - 1} = 2.2965$$

$$m_2^* = \mu^*(1 + \mu) = 6.8417$$

$$\mu_2^* = m_2^* - \mu^{*2} = 1.5678$$

$$m_3^* = \mu(\mu^* + m_2^*) + (1 + \mu)\mu_2^* = 22.7571$$

and $m_4^* = \mu[\mu^* + m_2^* + 2\mu_2^* + m_3^* - 2\mu(1 + \mu)] + (m_3^* - \mu m_2^*)(1 + 2\mu) = 91.6896.$

The variance of t is then estimated from the formula,

$$\text{var}(t) = \frac{1}{N\mu^{*2}} [(m_4^* - m_2^{*2}) + (1 + \mu)^2 \cdot \mu_2^* - 2(1 + \mu)(m_3^* - \mu^* m_2^*)] = 0.003600$$

so that the standard error is S.E. (t) = 0.0600.

Incidentally, the maximum likelihood estimate comes out to be

$$\hat{\mu} = 1.9623 \text{ with S.E. } (\hat{\mu}) = 0.0529.$$

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SOME CONSEQUENCES OF AN INTERPRETATION OF VARYING PROBABILITY SAMPLING

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SUMMARY. This paper shows an equivalence of sampling with probabilities proportional to sizes to sampling with equal probabilities from an artificially constructed population. The method of constructing this artificial population consists in assigning as many sub-units to a unit in the original population as it has the size. These sub-units are assigned values such that the total of the values of sub-units corresponding to any unit is equal to value of the character under study for that unit. This equivalence enables one to derive easily expressions for the estimator of the total, variance of this estimator, and estimator of this variance. Optimum stratification of the population of sub-units may lead to a situation where the same unit may partly belong to two adjoining strata. Optimum allocation derived from the population of sub-units will also be optimum for pps stratified sampling. Similarly, cases of pps stratified sampling and Des Raj's estimator of total for pps without replacement sampling can be interpreted in terms of sampling with equal probabilities from constructed populations.

1. INTRODUCTION

Instead of treating simple random sampling as a special case of sampling with probabilities proportional to sizes (pps) where sizes of all the units are equal, this paper proposes to treat sampling with probabilities proportional to sizes as simple random sampling from a hypothetical population. This approach was considered by Ecimovic (1956). The form of presentation here is, however, slightly different. Ecimovic suggests a method of assigning values to the units of the hypothetical population which is simple and convenient. In the present paper it is shown that for the particular case of single-stage unstratified sampling that method of assigning values is also the one which reduces the variance of the estimator to a minimum. The method can, however, be improved upon in case of stratified and systematic sampling. This possible improvement is explained through examples.

For stratified varying probability sampling, two allocations have been considered which correspond to the proportional and optimum allocations in case of simple random sampling. Using the known results for simple random sampling it is possible to obtain directly the expression for the variance of the estimator and prove that stratified sampling with proportional allocation is better than simple unstratified case. The solutions of the problem of optimum stratification as given by Dalenius and Gurney (1951) for simple random sampling can again be directly used for selection with probability proportional to size (pps).

The problem of pps with replacement sampling is considered in detail. It is shown, however, that simple random sampling without replacement from the hypothetical population improves upon the pps with replacement sampling. This improvement is substantial only if the sizes are all small. This leads to the suggestion of rounding off the sizes.

The method mentioned above is midway between pps with replacement sampling and pps without replacement sampling. A method of estimation corresponding to the one suggested by Des Raj for pps without replacement sampling is also given. This is likely to reduce the variance considerably though the estimator is slightly more complicated.

2. THE INTERPRETATION

Let there be N units in the population $U_1, U_2, \dots, U_N$. Let the i -th unit U_i have a size X_i ($i = 1, 2, \dots, N$). Corresponding to U_i can be conceived a group of X_i sub-units U_{ij} , ($j = 1, 2, \dots, X_i$). To these hypothetical sub-units one may assign values for the character under study which depend on the values for the same character in the real unit U_i . If Y_i be the value of the character Y for U_i , one may assign values $Y_{ij} = r_{ij}Y_i$ for U_{ij} such that

$$\sum_{j=1}^{X_i} r_{ij} = 1. \quad \dots (2.1)$$

Thus the total of the values of the hypothetical sub-units is the same as the total in the original population. An estimate of the total for the hypothetical population based on a sample of sub-units is also an estimate of the total for the original real population of N units. It is obvious that the values of r_{ij} 's must be fixed in advance before the sample is drawn, and for knowing the value of U_{ij} one has to observe U_i .

Selection of units with pps. Selection of sub-units with equal probabilities leads to the probabilities of observing the original units proportional to their sizes. The cumulative total method of selecting units with pps can easily be interpreted as a method of selecting sub-units with equal probabilities.

Estimation. The estimator of the total

$$Y = \sum_{i=1}^N Y_i = \sum_{i=1}^N \sum_{j=1}^{X_i} Y_{ij}$$

is clearly

$$\hat{Y} = \frac{X}{n} \sum_{ij=1}^n y_{ij} \quad \dots (2.2)$$

where X is the sum of the sizes (or the total number of sub-units) and n is the total sample size.

Variance of the estimator of total. The variance of the estimator $\hat{Y}$ is

$$\begin{aligned} V(\hat{Y}) &= \frac{X}{n} \sum_{i=1}^N \sum_{j=1}^{X_i} \left(Y_{ij} - \frac{Y}{X} \right)^2 \\ &= \frac{X}{n} \sum_{i=1}^N \sum_{j=1}^{X_i} \left\{ \left(Y_{ij} - \frac{Y_i}{X_i} \right) + \left(\frac{Y_i}{X_i} - \frac{Y}{X} \right) \right\}^2 \\ &= \frac{X}{n} \left[\sum_{i=1}^N \sum_{j=1}^{X_i} \left(Y_{ij} - \frac{Y_i}{X_i} \right)^2 + \sum_{i=1}^N \left(\frac{Y_i}{X_i} - \frac{Y}{X} \right)^2 X_i \right] \quad \dots (2.3) \end{aligned}$$

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Optimum values of r_{ij} 's. It is obvious from the expression given above that the variance of the estimator $\hat{Y}$ will be minimum if all r_{ij} 's are equal for any given i . In this case the values of all Y_{ij} 's are equal to Y_i/X_i .

The estimator
$$\hat{Y} = \frac{X}{n} \sum_{i=1}^n \frac{y_i}{x_i} \quad \dots (2.4)$$

and
$$V(\hat{Y}) = \frac{X}{n} \sum_{i=1}^N \left(\frac{Y_i}{X_i} - \frac{Y}{X} \right)^2 X_i. \quad \dots (2.5)$$

These optimum values of r_{ij} 's are, however, for the case when we are considering unstratified sampling or sampling from within a stratum, the strata being already defined. For the general stratified sampling equalising all r_{ij} 's may not be the best. This problem will be considered in a separate section.

Estimation of the variance. An unbiased estimator of the expression (2.3) for variance is

$$\hat{V}(\hat{Y}) = \frac{X^2}{n(n-1)} \sum_{i,j=1}^n \left(y_{ij} - \frac{\hat{Y}}{X} \right)^2. \quad \dots (2.6)$$

For the optimum case it becomes

$$\hat{V}(\hat{Y}) = \frac{X^2}{n(n-1)} \sum_{i=1}^n \left(\frac{y_i}{x_i} - \frac{\hat{Y}}{X} \right)^2. \quad \dots (2.7)$$

Allocations to strata in pps sampling. Proportional allocation for the stratified population of sub-units will mean allocation proportional to the sum of the sizes of the units, i.e.,

$$n_s = n \frac{\sum_{i=1}^{N_s} X_{is}}{X} = n \frac{X_s}{X}. \quad \dots (2.8)$$

Where n_s is the allocation to the s -th stratum, N_s is the number of units in the s -th stratum and X_{is} is the size of the i -th unit of the s -th stratum. The variance of $\hat{Y}$ for proportional allocation is

$$V_{\text{prop}} = \frac{X}{n} \left[\sum_{s=1}^k \sum_{i=1}^{N_s} \frac{Y_{is}^2}{X_{is}} - \sum_{s=1}^k \frac{Y_s^2}{X_s} \right]. \quad \dots (2.9)$$

This is smaller than the variance for unstratified sampling for all populations. The reduction in variance is

$$V_{\text{ran}} - V_{\text{prop}} = \frac{X}{n} \sum_{s=1}^k X_s \left(\frac{Y_s}{X_s} - \frac{Y}{X} \right)^2. \quad \dots (2.10)$$

Optimum allocation for pps sampling will mean

$$n_s \propto X_s \sigma'_s. \quad \dots (2.11)$$

Where σ'_s is the standard deviation in the s -th stratum of the population of sub-units.

$$\sigma'_s = \sqrt{\sum_{i=1}^{N_s} \left(\frac{Y_{is}}{X_{is}} - \frac{Y_s}{X_s} \right)^2 \frac{X_{is}}{X_s}}. \quad \dots (2.12)$$

The reduction in variance of the estimator of total due to using optimum allocation instead of proportional allocation is

$$V_{\text{prop}} - V_{\text{opt}} = \frac{X}{n} \sum_{s=1}^L X_s (\sigma'_s - \bar{\sigma}')^2 \quad \dots (2.13)$$

where

$$\bar{\sigma}' = \sum_{s=1}^L \frac{X_s}{X} \sigma'_s. \quad \dots (2.14)$$

3. PRINCIPLE OF STRATIFICATION

The principle used to stratify a population when simple random sampling is employed is to make the strata homogeneous with respect to the value of the character in question. The same principle applied to the sub-unit population means that the original population should be stratified in such a manner that strata become homogeneous with respect to the value of character per unit size.

The method will consist in arranging the units in a monotone sequence of the value of character per unit size $\left[\frac{Y_i}{X_i} \right]$ and marking off strata at suitable points depending on the allocation proposed. It is better to consider the hypothetical universe of the sub-units for this stratification.

For proportional allocation Dalenius (1950) has proved that the optimum point of stratification is that where the value of character is the mean of the means of two adjacent strata. The mean of the s -th stratum is $\frac{Y_s}{X_s}$ and that of the $(s+1)$ -th stratum is $\frac{Y_{s+1}}{X_{s+1}}$. For optimum stratification, the value of the character for sub-units at the point of stratification should be $\frac{1}{2} \left[\frac{Y_s}{X_s} + \frac{Y_{s+1}}{X_{s+1}} \right]$. A similar principle may be applied to optimum or other allocations.

Here one may note that some of the sub-units corresponding to a unit may go to one stratum and the rest to another. In that case it is not necessarily the best policy to assign equal values to all the sub-units. The possibility of reducing the

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variance of an estimator of total (or mean) by assigning unequal values to the sub-units is illustrated by a simple example given below :

serial no. of unit i	Y_i	X_i	$\frac{Y_i}{X_i}$
1	4	2	2.00
2	7	3	2.33
3	8	4	2.00
4	10	4	2.50
5	39	6	6.50
6	45	3	15.00
7	58	4	14.50
8	60	4	15.00
9	74	5	14.80

Suppose two strata are to be formed. As the strata are to be made homogeneous with respect to the ratio $\frac{Y_i}{X_i}$ obviously the first four units must go in one stratum and the last four in another. The problem is only about the 5-th unit where the ratio is very different from those in these two groups.

For allocations of one unit per stratum the variances for the estimate of the total for the two schemes of stratification are given below

sl. no.	scheme of stratification	variance of estimate of total
1	stratum 1 : first five units stratum 2 : last four units	1444.03
2	stratum 1 : first four units stratum 2 : last five units	6855.74

An entirely different scheme may be as follows :

Four out of the six sub-units corresponding to the fifth unit belong to the first stratum each having a value 2.25. The other two sub-units belong to the second stratum, each having a value 15.00.

In this case the fifth unit overlaps over the two strata. The variance corresponding to this modified scheme is only 23.52.

Without replacement sampling of sub-units. Instead of taking a simple random sample of sub-units with replacements one may take such a sample without replacement.

The estimation will remain

$$\hat{Y} = \frac{X}{n} \sum_{i=1}^n y_i \quad \dots (3.1)$$

but the variance will be slightly reduced

$$V(\hat{Y}) = X \left[\frac{1}{n} - \frac{1}{X} \right] \sum_{i=1}^N \left(\frac{Y_i}{X_i} - \frac{Y}{X} \right)^2 X_i. \quad \dots (3.2)$$

The slight reduction will not be worthwhile if $\frac{n}{X}$ is very small. If, for example, the sizes X_i 's are all three digit numbers and the sample size n is some number less than 20, one would gain little by this modification. If however the X_i 's are rounded off to the nearest hundred, the gain *may* be substantial.

If X_i 's provide good sizes for estimating the total Y , it is very likely that the rounded off values of X_i 's will be as good. This rounding off may moreover make the estimation simpler because calculation of multipliers $\frac{X}{nX_i}$ will be easier if X_i 's are small numbers.

The simple random sampling of sub-units without replacement is an approach whose position lies between pps with replacement sampling and pps without replacement sampling. Units with size 1 cannot be repeated in the sample. The maximum number of times a unit can be repeated is equal to its size.

Systematic sampling. If a systematic sample of sub-units is taken then also the estimator of total is

$$\hat{Y} = \frac{X}{n} \sum_{i,j=1}^n y_{ij}. \quad \dots (3.3)$$

In this case the best values of r_{ij} 's are not necessarily all equal. If, however, it is decided to take all $r_{ij} = \frac{1}{X_i}$ for $j = 1, 2, \dots, X_i$; $i = 1, 2, \dots, N$, then the estimator in this case also is

$$\hat{Y} = \frac{X}{n} \sum_{i=1}^N \frac{y_i}{x_i}. \quad \dots (3.4)$$

If all the sub-units corresponding to a unit are kept together in the arrangement of sub-units for systematic sampling, this amounts to the method of selection known as pps systematic sampling. The interpretation of pps systematic sampling as a systematic selection of sub-units with equal probabilities provides the simplest proof of the unbiasedness of the estimator (3.4). It also suggests the possibility of improving the estimator by assigning unequal values to the sub-units.

Example : For illustrating the improvement by assigning unequal values to different sub-units, a particularly simple example is given below where the population consists of four units and the sample of two units.

sl. no. of unit i	value of unit Y_i	size of unit X_i	ratio $\frac{Y_i}{X_i}$
1	4	2	2
2	12	3	4
3	9	3	3
4	20	4	5

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Variance for an estimator of total Y using pps systematic sampling when sub-units are assigned equal sizes is 125.33.

If, however, the 12 sub-units are assigned the following values, the variance becomes 45.00.

sl. no. of unit i	sl. no. of sub-units	value assigned to sub-units
1	1	2
1	2	2
2	3	4
2	4	4
2	5	4
3	6	1
3	7	4
3	8	4
4	9	4
4	10	4
4	11	5
4	12	7

4. OVERLAPPING UNITS

One may think of a two-stage sampling when some of the second stage units belong to more than one first-stage unit. In this case it is not apparent as to what method of estimation for total or for the variance of the estimator of total should be adopted.

Such cases are not imaginary and do arise in practice. For example, the problem may be to select a sample of households of factory workers. In the absence of a frame of such households, they may be approached in two stages. In the first stage a sample of factories may be selected. In the second stage an appropriate number of workers may be selected using the lists of workers of the selected factories. The households of these selected workers may be approached for investigation.

In such a method of selection, those households which have more than one workers in the same or different factories will have higher probabilities of selection. It may be quite difficult to calculate these probabilities for the purpose of estimation. It may even be impossible in the absence of any knowledge about the number of factory workers in all the factories. The following is a simple device to avoid this calculation and still get unbiased estimators.

If the value of some character under study for the i -th household is Y_i and there are n_i factory workers in the household, one may consider a group of n_i sub-units corresponding to this household each having a value $\frac{Y_i}{n_i}$. Although households overlap the first-stage units, i.e., factories, the corresponding sub-units do not and the estimation procedure becomes apparent.

Here again there is a possibility of improving the estimator by assigning unequal values to the sub-units. The principle of assigning these values may differ for different characters.

5. PPS SAMPLING WITHOUT REPLACEMENT

If the values Y_i of certain units U_i , ($i = 1, 2, \dots, n_1$) are already known, the total Y may be estimated by taking a sub-unit at random from the sub-units corresponding to the rest of the units. If a sub-unit corresponding to U_{n_1+1} is selected, an unbiased estimator is

$$\hat{Y}_{n_1+1} = \frac{n_1}{\sum_{i=1}^{n_1} y_i} + \frac{y_{n_1+1}}{x_{n_1+1}} \left(X - \sum_{i=1}^{n_1} x_i \right). \quad \dots (5.1)$$

In sampling without replacement, as the values of the selected units are known in the order of selection, one gets a set of such estimators with $n_1 = 0, 1, 2, \dots, (n-1)$. Des Raj has shown that these estimators are uncorrelated. Because of this remarkable property the variance of the simple average of these estimators is $\frac{1}{n^2}$ times the sum of the individual variances.

On considerations of sampling of sub-units with equal probabilities, it can be easily proved that $\hat{Y}_{n_1+1}$ has a smaller variance than $\hat{Y}_{n_1}$ for $n_1 = 1, 2, \dots, (n-1)$. Hence

$$V \left[\frac{1}{n} \sum_{n_1=0}^{n-1} \hat{Y}_{n_1+1} \right] = \frac{1}{n^2} \sum_{n_1=0}^{n-1} V(\hat{Y}_{n_1+1}) \leq \frac{1}{n^2} \cdot n V(\hat{Y}_1) = \frac{1}{n} V(\hat{Y}_1). \quad \dots (5.2)$$

But $\frac{1}{n} V(\hat{Y}_1)$ is the variance of an estimator based on a sample of size n

drawn with pps with replacement. This proves that the estimator proposed by Des Raj for without replacement sampling is superior to the usual estimator for a sample drawn with replacement.*

It may be noted that in cases where a unit overlaps two or more strata as suggested in section 3, and if a sub-unit corresponding to such a unit is selected in one stratum, the values of the other sub-units in other strata are also known. If instead of ignoring this information one utilises it, the variance will be still further reduced.

Some further consequences of the concept of a hypothetical population of sub-units are being examined by the author.

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* Ecimovic also considers the case of without replacement sampling. But the estimator he arrives at is a biased one. As is well known, the unbiased estimator used for pps with replacement sampling is biased for without replacement sampling. This bias is, however, unlikely to be large whenever the sample size is small compared to the number of units in the population.

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A NOTE ON THE VALIDITY OF A MEDICAL COLLEGE SELECTION PROGRAMME*

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SUMMARY. In 1946 the Christian Medical College of Vellore (South India), introduced new and more scientific methods for selection of students. The new methods have resulted in a substantial reduction in the number of papers failed per student and years repeated. This paper describes the selection programme very briefly giving various types of evidence on the value of these scientific selection methods and concludes with a technical note on the correction of validity coefficients for the differential effects of restriction of range. This is a first report on full-scale validity studies which are in progress.

1. BRIEF DESCRIPTION

In 1946 a special testing programme for the selection of medical students was introduced in the Christian Medical College, Vellore. It was organized by Dr. Frank Lake, on the basis of his experience in the officer selection methods used in the British Army. The selection method used is a two-stage process. The first stage consists of a series of objective ("new-type") tests of knowledge and ability. The second stage includes various types of tests which try to get at the student's personality, level of motivation and drive, interests, emotional stability, etc.

At the first stage, examinations are administered all over India, and even in Pakistan, Burma, and Ceylon. Questions such as the following are used :

*The final form of this report represents a collaboration between members of the staff of the Christian Medical College, Vellore, and members of the staff of the Psychometric Research and Service Unit of the Research and Training School, Indian Statistical Institute, Calcutta. Its antecedents should be acknowledged: The study was originally begun in 1951 by Mrs. Carman (who had been active in the selection programme from its beginning in 1946) and Dr. Harper (then at Ewing Christian College, Allahabad). It was based partly on previous work done by Dr. Frank Lake, Mrs. Carman, and others. The first full report of this work was prepared by Mrs. Carman in 1953, for private circulation, but only a brief non-technical summary was published. The current report draws heavily on this original manuscript, which remained unpublished; but much of the original material has been left out, while new data have been added in certain areas. A first draft was cyclostyled in December 1955 for private circulation, but contained certain inadequacies and inaccuracies. This is the revised and corrected version, to which the major contributions were as follows: Mrs. Carman and Dr. Paul, assisted by Shri P. S. Sunder Rao gathered, sorted, and organized the data, and advised on interpretation. The analysis and reporting were the responsibility of Dr. Harper, with both theoretical and computational assistance from Shri B. Das Gupta, Mr. A. Kudo, Shri S. P. Sangal, and Shri Tapas Kumar Sen. The opinions expressed, however, are those of the authors and do not necessarily reflect the official policy of the College or of the Institute.

Questions. During photosynthesis :

- (1) Oxygen and simple sugar combine to form carbon dioxide and water.
- (2) Simple sugar oxidizes and releases energy.
- (3) Water and carbon dioxide combine to form fats and proteins.
- (4) Water and chlorophyll combine to form simple sugar.
- (5) Water and carbon dioxide combine to form simple sugar and oxygen.

The student is asked to select the one correct answer from the alternatives listed, and to indicate his selection on a special separate answer sheet. About 250 questions on Physics, Chemistry, Biology, and General Knowledge are answered in about three hours testing time. There is also a General Ability ("intelligence") test, and tests of English Comprehension and Composition. The entire series is completed in one day.* There have been some changes in the specific tests from year to year, but the areas covered have remained substantially the same.

Out of the preliminary applicants who have taken the objective tests, a small group of the most promising are invited to Vellore, for the second stage of the selection programme. The candidates are split up into groups of ten, and a member of the medical college staff is assigned to each group as its "Group Observer." During the next two days each group is put through a series of tests designed to elicit a wide sampling of actual behaviour, under various types of situations. Sometimes the group is assigned a problem-task which can only be solved through active group cooperation. In other tests the individual must perform alone. There are also interviews, physical examinations, and time out for recreation. At the end of this time, all those who have observed candidates in one or more of the various tests, meet together to determine a final over-all rating ("Final Board Grade") for each candidate. Final selections, based on this over-all rating, are made by a Selection Committee. The Selection Committee must, of course, also take into account such factors as all-India representation and the filling of reserved seats.

2. COMPARISON OF OLD AND NEW SELECTION METHODS

The question arises, "How good are the tests?" Studies have been made from time to time since the programme began, and are still being made on this question. Here are some of the results.

"Is the new method any better than the one it replaces?" A pilot study, completed in 1952, compared two groups of approximately a hundred students each. The first three classes admitted under the new selection method totalled 98 students. These were compared with the last groups of students admitted under the old methods,

*Objective tests are known to be a more accurate and efficient means of testing knowledge, understanding, thinking, etc., than the traditional type of examination. A further advantage is ease of scoring, even when done by hand. The tests are also adapted to scoring by punch-card machines, with considerable gains in speed, accuracy, and economy. For example, recently 5,400 such tests were marked in a bit over a week, at a cost of less than three annas each.

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four classes which totalled 101 students. (The "old methods" were the usual ones of Intermediate marks, written recommendations, etc.). In order to have as large *N*'s as possible to work with, the 1948 class was included, although it was still one year short of graduation (1953). For this reason, the first comparison was based on only the first four years for *all* of the 199 cases in the pilot study. The data are presented in Table 1.

TABLE 1. STATUS OF STUDENTS AT THE END OF FOURTH YEAR

	selection method : admission years	
	old : 1942-1945	new: 1946-1948
total number of candidates admitted	101	98
left for marriage, health, or transfer to another institution	7	2
number for whom adequate academic record is available	94	96
discontinued for failure	8	2
number available for study in 1952, and on whom the following figures are based	86	94
<i>data on lost years *</i>		
number on schedule at end of fourth year	43	54
number one-half year late	22	29
number one or more years late	21	11
total number of years lost by failure	39.5	27.5
years lost per student	.46	.29
total number of papers failed	130	73
papers failed per student	1.51	.78

*Time lost because of illness was not counted in computing years lost.

As assessed at the end of the Fourth Year of medical college, the introduction of the new selection methods had resulted in a reduction of approximately 40 percent in "lost years", and 50 percent in the number of papers failed, per student. The difference in the number "discontinued for failure" reflects a change in Madras University policy. All of the "old" group, and some of the "new" had to undergo a pre-registration course, and those who failed twice were not admitted to medical studies. This course was discontinued after 1947. Apparently this six-month pre-registration course was a very efficient "selection test" and greatly reduced later failures, particularly those in the Fifth Year. It is for this reason that the Fourth-Year results, are presented, for comparison with the remaining Tables in this section of the paper.

Tables 2, 3, 4, and 5 are based on the full five year medical course, for which the analysis is presented in more detail. Every student included had either completed his or her medical course, or had been discontinued for failure, by the time this paper was written.

One of the bases for comparison of old and new selection methods was the number of *extra* years (beyond the minimum possible of five years) that the students took to complete their course. Table 2 presents these data.

TABLE 2. YEARS LOST BY ALL STUDENTS,
UNDER OLD (1942-1945) AND NEW
(1946-1948) SELECTION METHODS

method of selection	number of students	cost to the Institution	
		total years lost	years lost per student
old	86 ¹	72	.84
new	94 ²	58	.62

¹ Out of 101 admitted 7 left for marriage, health, or transfer to another institution; 8 discontinued for failure in pre-registration course. Time lost for illness not counted.

² Out of 98 admitted 2 discontinued for failure (not in pre-registration, but much later in the medical course), and 2 left for marriage or transfer. Years lost for illness not counted.

The criterion here is a very practical one. Extra years spent in the medical college cost the student heavily in both time and money. They also cost the institution a great deal. Table 2 shows that 94 students chosen by the new methods lost (i.e. had to repeat, because of failure) an average of .62 years apiece, while the previous group lost an average of .84 years per student.

If we drop the decimal point in the last column of Table 2, (i.e. multiply "per student" rates by 100), we find that the net gain per hundred students is 22 years, i.e., two years more than the time it takes to give a 5-year medical education to each of four students. In other words, *with a given amount of facilities and finance*, a little better than *four more students per hundred* are being given a medical education since these modern selection methods were substituted for the older ones. (It should also be noted that this is probably an underestimate of the actual savings, as the students "discontinued for failure" have not been included in Table 2. This point is discussed in more detail later in this paper).

A second criterion for the success of a selection programme is its reduction in the number of failures. There were various reasons why we did not take examination marks as a criterion; one was that these marks often represent the student's second or third "try." A better standard seemed to be the total number of failures per individual. A paper failed once was counted once, but a paper failed repeatedly was counted each time it was failed. Table 3 shows that the new selection methods *cut down failures by more than one quarter*.

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TABLE 3. NUMBER OF PAPERS FAILED BY
STUDENTS SELECTED UNDER OLD
AND NEW METHODS

method	number of students	total number failed	failures per student
old	86*	229	2.66
new	94*	181	1.93

* See footnotes to Table 2.

It was necessary to exclude those "discontinued for failure" from Tables 2 and 3, in order to compare the groups more accurately. This is because the eight failures in the "old" group were all dropped for twice failing in the pre-registration course, and so were given no opportunity to lose years or fail in papers. If they passed pre-registration, however, they were allowed to continue almost indefinitely. In the "new" group, on the other hand, the barrier came much later, and also was more lenient. Only those who failed in the First M. B. examinations three times were dropped. Thus the difference in total number of years failed is partially a function of changes in University and College policy, as well as of changes in selection methods.

It does not seem unreasonable to suppose that, had the eight "old method" selectees not been eliminated by the pre-registration course barrier, their failures by the end of the Fifth Year would have been much higher than the average of their classmates, thus increasing the rates "per student". Thus a comparison of Tables 2 and 3 with Table 1 suggests that the latter are conservative "minimum estimates." The early elimination of students "discontinued for failure" has probably reduced the number of failures under "old method" far more than under "new method." (It may also be that "left for marriage, health, or transfer" is an index of the efficiency of selection—although, since this is difficult to prove, its effect has been discounted in all of the tables). Thus it seems safe to conclude that the "true" figures lie somewhere between $\frac{1}{4}$ and $\frac{3}{8}$ reduction in the number of years lost per candidate; and between 27 percent and 50 percent reduction in the number of papers failed.

There is one method by which we can by-pass this problem of the changes in University policy, although the results will not be as directly interpretable in economic terms as was in Table 2. Instead of attempting to add up the exact number of years lost for failure, we can classify the students in several groups. The changes in University policy discussed above do not affect those who complete their course on time, or are delayed, say, half a year. They affect only those who are delayed at least one year. A very strict policy drops students after one year lost in failure; a very lenient policy allows them to continue even as much as five years. So we can reasonably classify the students dropped for failure with the group who completed the course one or more years late, and thus be able to make use of the data which had to be discarded for Tables 2 and 3. Table 4 gives the results of such an analysis.

TABLE 4. EFFICIENCY OF SELECTION METHOD WHEN
EFFECT OF CHANGE OF UNIVERSITY POLICY
ON FAILURES IS DISCOUNTED

method of selection	number of students	per cent finished less than $\frac{1}{2}$ year late	per cent finished one or more years late or disconti- nued for failure
old	94	55	45
new	96	70	30

In the group on the right of Table 4 are those who contributed to "waste"* of educational facilities. Those who eventually graduated, contributed to "waste" by using more than the minimum of five years to complete their medical course. Those who were discontinued for failure contributed to "waste" in two ways: the number of years that they spent in the college, and the empty seats that they left. If these places remain unfilled (as they usually must) then they represent facilities that *could* have been used for educating doctors, had the right candidates been selected. Table 4 shows that the percentage of students belonging to this group who contribute seriously to "waste" of facilities has been reduced by one-third, by the introduction of the new selection methods. The percentage of students in the "successful" group, who contributed little or nothing to "waste", increased by about one quarter.

Table 5 gives a more detailed breakdown of Table 4 and serves two functions. Firstly, the question is frequently asked, "Could the differences between the 1942-1945 group and the 1946-1948 group be due to a change in the quality of the candidates, from whom the selections were made?" There is no direct answer to this. However, accepting Intermediate Division as at least a rough indicator of "quality", and assuming that each selected class represents the best of the candidates, we can give a fairly confident answer. From Table 5 we read that 36 First Divisioners were selected for the 1942-1945 classes, and 39 for the 1946-1948 classes. The number of Second and Third Divisioners was 58 and 57 respectively. (Many of the universities concerned do not award Third Divisions, so the number of Thirds is too small to warrant separate consideration). Thus the difference between the two groups is due to qualities other than those measured by the I.Sc. examinations.

*We are indebted to Dr. E. Douglass Burdick for the help in clarifying this concept of "waste". We hasten to add that we recognize that this term cannot be used in any absolute or dogmatic fashion. The partial medical education of a student discontinued for failure may not be a total loss to society. And occasionally a student who has repeated several years may, by his later career, justify the extra expense.

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TABLE 5. RELATIVE EFFICIENCY OF SELECTION METHODS
FOR CANDIDATES WITH DIFFERENT MARKS
IN I.S.C. EXAMINATION

division	method of selection	number	percent finishing		
			on time	1 year late	1+ or fail*
I	old	36	43	36	21
	new	39	49	36	15
II & III	old	58	15	26	59
	new	57	30	30	40

*The third column includes those who finished the course one or more years late, and also those who were discontinued because of failure.

The second function of Table 5 is to point out one of the reasons for the success of the new selection programme. The selection criterion which is probably most widely used by professional colleges, as well as various employers, is the division secured in Intermediate Examinations. This is a valuable criterion, as can be seen by contrasting the two groups selected by the "old" method (i.e. with heavy reliance placed on the marks in I.Sc. Examination). For example, only about one-third as many Seconds as Firsts were able to complete their course in the minimum five years (15% vs. 43%), and nearly three times as many (59% vs. 21%) were seriously detained. (Although it is also notable that one-fifth of the Firsts (21%) did quite poorly, when selection was based mainly on that criterion). The new selection programme, in which Intermediate Division played a minor role, selected slightly better First Divisioners than previously—although this difference is not statistically significant, and so we cannot generalize from it. The main contribution of the new selection methods, however, is in the improvement in the quality of Second and Third Divisioners admitted. As many have suspected, the *lack* of a First Division mark is *not* necessarily proof of a lack of ability. Able students frequently receive lower marks, due to the unreliability of traditional examinations,* ill health, or other irrelevant reasons. The objective tests, with their higher reliability and validity, help to select the more able of the Second and Third Divisioners. The proportion of this group completing the course on time has been doubled (15% to 30%). The proportion seriously detained has been reduced by nearly one-third (59% to 40%). When we consider the fact that the total testing time in both stages of the new selection programme is less than half the number of hours of examination on which the I.Sc. Division is based—and that this shorter testing time assesses not only knowledge but intelligence, special aptitudes, and various aspects of personality as well—the contrast in efficiency is worth noting.

*See, especially, *The Report of the University Education Commission*, Dec. 1948–Aug. 1949, Vol. I, Chapter X, pp. 328, 336.

3. OVER-ALL VALIDITY OF THE TWO-STAGE SELECTION METHODS

In section 1 we described the two-stage selection process: (1) a preliminary selection of a group of promising candidates is made on the basis of objective tests administered to all qualified applicants and (2) this smaller "group of promising candidates" is called to Vellore for intensive assessment, and final rating. It should be obvious that the second stage is far more difficult to organize and administer, and far more expensive (in terms of requiring three full days of time from top-level medical staff) than the first stage. Two questions arise: (1) "Is it worthwhile?" and (2) "Is it necessary?"

The answer to these questions should be based on empirical evidence; even though many other factors must also be taken into account. But even in quantifying empirical evidence, difficult questions arise. Perhaps the hardest to solve is the question, "What should be our criterion, against which we will judge the success of the tests?" Ideally, we would like to find out whether our tests predict whether or not a candidate will become a good doctor. This is not quite the same as predicting whether or not he will do well in medical college. Experience shows that there is by no means a one to one relationship between medical college marks and how successful a doctor the person becomes. But how can we find out how good a doctor the ex-student has become? How shall we define "success"? How many years do we have to wait to know whether he is "successful" or not? These problems seem almost insurmountable. So we did the next best thing; we asked the teachers who knew each candidate best to *rate* him on how good a potential doctor they thought he was. (This rating was done in 1952, at the end of two to five years of the medical course of each student). These ratings took into account ability and achievement, as well as personality, motivation, and drive. Since each student was rated by several doctors who knew him well, these ratings represent a comprehensive judgement on each student. They are, at very least, an interesting criterion against which to test our tests.

Table 6 summarizes the results. Complete data were available on four different classes (1947-1950) who have finished (or should have finished) their medical course. These have been analyzed separately for each year, and then combined. (See Appendix A). The coefficients of correlation in Table 6 represent, therefore, the relationship between selection methods and two different criteria for a total of 130 students. The two criteria used were (1) whether or not the student finished his medical course within five years ("On Time") and (2) his average rating as a "Potential Doctor."

There are two rather striking facts that emerge from Table 6. One is that the methods used at both stages of selection predict the candidates' rating (given two to five years later) as a "potential doctor" better than they do his ability to complete his medical education in five years ($+ .55$ and $+ .56$ vs. $+ .48$ and $+ .36$). What does this mean? The possibility that the ratings were influenced by the original marks is

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TABLE 6. RELATIVE AND COMBINED VALIDITIES OF FIRST STAGE AND SECOND STAGE OF SELECTION
(Summary of Table A.1)

average of tests used at	N	criterion	
		on time	potential doctor
first stage of selection	130	+ .48	+ .55
second stage of selection	130	+ .36	+ .56
multiple <i>R</i> of first and second stages combined*		+ .49	+ .63

* It should be pointed out that the interpretation of these *R*'s is not entirely clear, since the Selection Board had the First Stage results before them, (along with the remaining marks and ratings), when determining the Final Board Rating. Thus the Second Stage is not entirely independent of the First Stage—although it is by no means closely dependent, either. The intercorrelation of the two Stages—which reflects *both* their interdependence *and* the fact that they are two different estimates of the same individuals—is +.55. There seems adequate reason to believe that the two multiple *R*'s, even though they cannot be interpreted in absolute terms, are not entirely spurious; and also that they give us a fairly accurate picture of the relative values of the various combinations. In fact a spuriously high intercorrelation between the two estimates might actually lower the value of *R*, under certain conditions.

largely ruled out as: (1) ratings were made two to five years after admissions tests were graded; and (2) in any case if a doctor remembered any original gradings at all, they would only be those of the ten candidates for whom he was the "Group Observer"—not all of whom were admitted. A second possible interpretation is that the tests, especially those of the Second Stage, have been designed to measure primarily those factors which are believed to make a good doctor, regardless of whether or not he takes more than five years to finish his medical college education. A third possible interpretation (not necessarily inconsistent with the second) is that the "potential doctor" ratings are a more reliable and valid criterion than is "keeping up to schedule," which is based on the passing of university examinations. If the hundreds of research findings on the unreliability of traditional examinations in Europe, the U. K., and the U.S.A., are at all applicable to India (as the Radhakrishnan report seemed to think they were),** then this second interpretation is fairly plausible. Its plausibility is further enhanced by an examination of the detailed data (Table A.1, near the end of this paper). The correlations against the ratings of "potential doctor" vary much less from year to year than do the correlations with the academic criterion. This is not only true for the "judgements" at the second stage of selection, but also for the objective tests of knowledge and ability used at the first stage. The range between highest and lowest correlation averages more than twice as much for the academic criterion as for the ratings.

***The Report of the University Education Commission*, Dec. 1948—Aug. 1949, Vol. I, Chapter X, pp. 328-9, etc.

The second striking thing in Table 6 is that the tests at the Second Stage seem to do a considerably poorer job of predicting academic achievement ($+ .36$ vs. $+ .48$), than do the First Stage tests. Both stages do about equally well ($+ .56$ vs. $+ .55$) at predicting "potential doctor". The second stage is significantly better at predicting "potential doctor" than it is in predicting mere academic success. These facts seem to lay emphasis on the second interpretation mentioned in the last paragraph (i.e. that the tests measure something other than mere academic ability); though they do not rule out the third interpretation (i.e. the relative unreliability of university examinations) either.

An examination of the multiple correlation of First plus Second Stage, against each of the criteria, is also revealing.* Ordinarily in adding up examination marks, equal weight is given to each mark. The multiple correlation method gives us the optimum weight for each part, to produce the largest possible correlation coefficient. The multiple R for First Stage plus Second Stage, against the criterion of finishing "on time", is $+ .49$; since the First Stage alone predicts this criterion $+ .48$, the Second Stage does not seem to add anything to purely academic prediction. However, for the "potential doctor" criterion, the picture is somewhat different. Here the multiple R is $+ .63$, as against $+ .55$ for the First Stage alone. The Second Stage seems to be making some contribution to maximum possible prediction. (The exact nature, and extent of this contribution will be a subject for a later report).

We started this section with two questions. The answers to these two questions seem to be thus: (1) "Is the Second Stage selection process worthwhile?" If you consider the rating by medical staff, after two to five years of contact with the student, of how good a doctor they think he will be—if you consider this an *important* criterion, then the Second Stage is probably worthwhile. (2) "Is the Second Stage in the selection process absolutely necessary?" The answer seems to be definitely "No". The First Stage alone can carry the burden of selection, even if the Second is dropped. This is even more true if you consider academic achievement (and the financial and other implications of "finishing on time") to be the most important criterion. The preliminary battery of objective tests of knowledge, understanding, and ability seem to give a pretty good prediction of academic success. (In relation to studies of this kind done in the U.S.A., $+ .48$ is a reasonably good figure). A multiple correlation weighting each of the tests optimally (instead of just adding and averaging, as is now done) should raise their predictive efficiency even higher.

It must not be forgotten, however, that we have studied only two out of the large number of possible criteria. There is not much reason to believe that other types of purely academic criteria would give radically different results. However, if we selected such criteria as "absence of discipline problems," "leadership," "ability to cooperate with others," or even "beside manner", the Second Stage might prove a much better predictor than the First.

* See footnote to Table 6.

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4. WHICH TESTS ARE BEST ?

This question will be most adequately answered by the full correlational study which is in progress. A rough indication of the power of some of the tests, however, has been given in Tables 7-12. For this analysis, data were gathered for three contrasting groups: (1) 50 students who finished in five years; (2) 50 students who were delayed half a year; (3) 50 students who were delayed one or more years (some of whom had not yet finished). Each of the following tables shows the relationship between marks on a particular test, or group of tests, and the time taken to finish the medical college course. (For simplicity, we have not reported the full range of admission test scores, but rather divided the candidates into only three grades: High, Moderate, and Low on each admission test).

One thing which should be kept in mind in evaluating these tables is that they are necessarily based on students actually admitted to the medical college, not on all who took the tests. No correction for this restriction of range has been applied in making the tables. Furthermore, since some tests are restricted more than others, the more valid measures may end up with *apparently* lower validities than some of the measures which actually discriminate less. An example will make one of the reasons for this clear. Candidates are given grades ranging from 1 (for the highest) to 9 (for the lowest) on each test, and in the Final Board Rating. When the Selection Committee sits, they select candidates primarily on the basis of the Final Board Rating. Thus no candidate with a Final Board grade lower than 6 is likely to be admitted. Candidates with Final Board grades of 7, 8, or 9 are automatically excluded from the class. However, several candidates with marks as low as 8 or 9 on the General Ability test may be admitted, because they did well enough on other tests to be graded 5 or 6 by the Final Board. Thus it is obvious that, other things being equal, the difference in later achievement between students rated highest and lowest on General Ability (range 1 to 9) is bound to be greater than the difference between students rated highest and lowest (range 1 to 6) on Final Board Grade. (The actual situation is, of course, usually more complex than this. A more technical discussion of this problem, and its solution, are given in the Appendix to this paper).

Table 7 shows the relationship between the objective (new type) pre-medical tests, (Physics and Chemistry, with Biology added last year) and performance in medical college. Of the 49 students rated High on the pre-medical tests, 24 (49%) finished the five-year course on time, 17 (35%) finished half a year late, and the remaining 8 (16%) finished or will finish one or more years late. The group of students who rated Moderate in the pre-medical battery seemed to contain about equal numbers of good, medium and poor students. But of the 52 students who rated Low, only 21 percent finished on time, while 50 percent fell one or more years behind.

The relationship between test and performance is even more marked for English comprehension (Table 8). Of the 58 students who rated High in their comprehension of written and spoken scientific English, 47 percent did well and 21 percent finished

TABLE 7. RELATIONSHIP BETWEEN OBJECTIVE PRE-MEDICAL TESTS AND PERFORMANCE IN MEDICAL COLLEGE

rating in pre-medical	N	group of fifty	percent falling in each group
high	49	on time	49
		$\frac{1}{2}$ year late	35
		1 or more years late	16
moderate	49	on time	31
		$\frac{1}{2}$ year late	37
		1 or more years late	33
low	52	on time	21
		$\frac{1}{2}$ year late	29
		1 or more years late	50

(or will finish) late. But of those rated Low in English comprehension, only five per cent were able to keep up to schedule—and a phenomenal 68 percent (15 out of 22) fell badly behind.

TABLE 8. RELATIONSHIP BETWEEN TEST AND PERFORMANCE
(ENGLISH COMPREHENSION)

rating in English comprehension	N	group of fifty	percent falling in each group
high	58	On time	47
		$\frac{1}{2}$ year late	33
		1 or more years late	21
moderate	70	on time	31
		$\frac{1}{2}$ year late	36
		1 or more years late	33
low	22	on time	5
		$\frac{1}{2}$ year late	27
		1 or more years late	68

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Another test which discriminates very well is the General Ability test (Table 9). This is a measure of various types of mental ability required for educational success, in general. The table shows that only nine percent of those rated High in General Ability fell more than one-half year behind. But of those who scored Low in General Ability, 65 percent took one or more years to finish their medical education. This relationship has been supported by several other analyses that we have done. In one earlier study (of 124 students), the 26 who scored Low in General Ability lost more than three times as many years per student as did the 40 who were High on this test (1.23 vs. .38 years lost per student).

TABLE 9. GENERAL ABILITY TEST

rating in general ability	N	group of fifty	percent falling in each group
high	44	on time	48
		$\frac{1}{2}$ year late	43
		1 or more years late	9
moderate	72	on time	33
		$\frac{1}{2}$ year late	33
		1 or more years late	33
low	34	on time	15
		$\frac{1}{2}$ year late	20
		1 or more years late	65

The Pre-Medical Tests (Physics, Chemistry, Biology), most of the English Comprehension test, and the General Ability test are all group tests. They are administered to large number of candidates, in many different centres all over the country. The First Stage selection is based on an average of these tests, along with one or two others. Table 10 shows that the composite score on the tests mentioned above is a useful predictor of success in this medical college.

TABLE 10. COMPOSITE SCORE ON THE TESTS
(Tables 7—9)

rating on composite score of PMT+EC+GA	N	group of fifty	percent falling in each group
high	45	on time	49
		$\frac{1}{2}$ year late	40
		1 or more years late	11
moderate	70	on time	34
		$\frac{1}{2}$ year late	32
		1 or more years late	34
low	35	on time	11
		$\frac{1}{2}$ year late	29
		1 or more years late	60

Table 11 gives the actual number of students (rather than percentages) in each group, on which Table 10 is based. It is interesting to note that if the college had refused admission to all of the candidates who scored "Low", they would have lost only 4 really good students but would have kept out more than 40 percent of the 50 slowest ones.

TABLE 11. ACTUAL NUMBER OF STUDENTS

rating on composite score of PMT + EC + GA	number finishing medical college			
	on time	$\frac{1}{2}$ year late	1 or more years late	total
high	22	18	5	45
moderate	24	22	24	70
low	4	10	21	35
total	50	50	50	150

The small group who are called to Vellore, on the basis of the First Stage results, are examined far more intensively and intimately. Many of these Second Stage selection devices are primarily for the assessment of non-cognitive factors—interests, personality, character, leadership qualities, motivation and drive, etc. The validities of the various Second Stage items are not reported here; we will present only the Final Board Rating. In making its final rating, the Board has before it all available information about the candidate—his scores in the objective First Stage tests, as well as ratings, descriptions, and comments given by Group Observer, Test Observer, psychologist or psychiatrist, etc. All of these enter into the Board's final judgement as to the fitness of the candidate. The validity of this final judgement is quite evident from Table 12. It is not a perfect predictor of "ability to finish college in five years"—but this is at least partly due to the fact that this is *not* the only thing the Board is trying to predict. (The relationship is also misleadingly lowered because of the "restriction of range" effect discussed above and in the Appendix). But even so, of the candidates rated High, the number who fall one or more years behind is less than half of the number who keep up to schedule. But among those few who were admitted in spite of being rated Low by the Final Board, the "one or more years behind" group is larger than both the "on time" and "half year late" groups put together.

5. CONCLUSION

The Vellore Christian Medical College selection programme has proved itself a useful method for selecting students. Its validity is higher than that of the more traditional selection methods, which were in use before 1946. Not only the two composite scores, but also the individual tests show an ability to predict academic success in medical education. In addition to what has been presented here, all of the unpublished data—some of it covering several more years, and, therefore, larger numbers of students than this report—point to the same conclusion.

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TABLE 12

final board rating	N	group of fifty	percent falling in each group
high	70	on time	47
		$\frac{1}{2}$ year late	31
		1 or more years late	22
moderate	67	on time	22
		$\frac{1}{2}$ year late	36
		1 or more years late	42
low*	9	on time	22
		$\frac{1}{2}$ year late	72
		1 or more years late	56

*We cannot, of course, place much reliance in percentages calculated for the "Low" group, because the number of "Low" candidates admitted is necessarily small. However, presumably those admitted are among the better of the "Low" candidates; and, in the context of the table, it seems unlikely that the proportion failing would have been any less if a larger number of "Low" candidates had been admitted. cf. also discussion of "restriction of range" effect.

Since these results are in line with those of similar studies done in the U.S.A. and elsewhere, there seems to be no reason why the methods should not be equally applicable to any other medical college in India. This is true even if the Second Stage (personality assessment, individual interview, etc.) is dropped from the programme. Although the Second Stage adds to the value of the selection programme, it is not an absolute necessity. The objective group tests of pre-medical training, general ability, and comprehension are in themselves a valid battery. They can be applied simply and economically to large groups of candidates. Where personality and character are not to be taken into account in selecting students, the objective group tests form an adequate basis for selection.

Appendix A

THE RESTRICTION OF RANGE PROBLEM*

The above presentation has tried to avoid the technicalities of statistical analysis, in favour of a more directly meaningful interpretation. But, for those who are aware of some of the knotty problems involved—and also for those who may wish to compare this with other such studies—a brief description is given here. It should be noted that—largely due to complex theoretical problems—the statistical analysis is not yet complete on the detailed tests. When this is finished, a full report will be published.

In any testing programme, we want to measure many attributes of the individual. The tests are our measuring instruments, and the score is the numerical evaluation of the ability or attribute. But before this numerical evaluation can be accepted as a valuable or meaningful measure, it becomes necessary to answer two questions:

- (1) Is the measuring instrument reliable?
- (2) To what extent is the measuring instrument measuring what it is supposed to measure, i.e. how valid is it?

It is the second question that was faced in this study, and some of its complications will be dealt with in this Appendix.

For dealing with the mathematical part, the tests will be denoted by X and the criterion by Y .

The answer to the second question, "How valid is the test?" is given by the coefficient of correlation between X and Y , which is known as the validity coefficient.

Table A.1 gives the validity coefficients for each Stage of selection against each criterion, separately for each year. Three correlations are reported for the "on time" criterion. The *biserial* r seemed especially relevant for this criterion; variation is allowed on one side of the curve ($\frac{1}{2}$ year late, 1 year late, $1\frac{1}{2}$ years late, etc.) but not on the other (no student can get a score *better* than "on time"). The *biserial* r corrects for this by "normalizing" the curve—i.e. by telling us what the product-moment r would be if the total group were normally distributed. (The *biserial* r was not relevant in this way to the "potential doctor" criterion, so was not calculated there).

Unfortunately, we cannot apply the correction for "restriction of range" (see below) to a *biserial* r . The assumptions underlying the *biserial* (a normal distribution) and the correction (a truncated distribution) are mutually contradictory. Therefore, we also calculated the product-moment r in each case. It was this product-moment r which was "corrected for restriction of range." The r 's were then added, using Fisher's z -transformation, and the mean r calculated. It is this mean r which was reported in Table 6.

* This note was prepared mainly by S. P. Sangal, after consultation with R. G. Laha and A. Kudo—the latter suggesting most of the formulae.

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TABLE A.1

	year				mean
	1947	1948	1949	1950	
number of cases	33	33	30	34	130
<i>criterion : on time or behind schedule</i>					
first stage of selection					
r_{bis}	+.304	+.719	+.488	+.287	
uncorrected r	+.278	+.520	+.494	+.194	
corrected r	+.342	+.741	+.506	+.213	+.48
second stage of selection					
r_{bis}	+.330	+.402	+.527	*****	
uncorrected r	+.396	+.334	+.473	*****	
corrected r	+.479	+.524	+.491	*****	+.36
<i>criterion : rating as a potential doctor</i>					
first stage of selection					
uncorrected r	+.528	+.431	+.621	+.364	
corrected r	+.480	+.521	+.635	+.444	+.55
second stage of selection					
uncorrected r	+.501	+.488	+.519	+.386	
corrected r	+.628	+.658	+.387	+.557	+.56

Note: Correlations replaced by ***** were not significantly different from zero. While these were taken into account in calculating mean r , the values are not reported to avoid possible misinterpretation.

It is well known that when the range of one or both variables in a correlation problem is restricted, the coefficient of correlation will be reduced. This effect is always present to some degree when we validate tests by correlating them with a criterion in a selected group. Where a large proportion of candidates are selected, the effect is slight; but when we have, as in the Vellore study, selection ratios as stiff as one in ten, the effect may be quite marked. If the lowering of the validity coefficients were equal for all tests, this probably would not matter. What makes the problem really serious is the fact that the lowering of the validity coefficient of a test is *proportional to the extent to which that test has been used as a basis for selection*. Thus, unless a correction is applied, a valid test which was weighted heavily in the selection battery may end up with a coefficient which is *lower* than that of an actually less valid test which was not given much weight in the composite score.

Formulae are available for various simple cases of restriction. (See R. L. Thorndike, *Personnel Selection: Tests and Measurement Techniques* or H. Gulliksen, *Theory of Mental Tests*). These formulae are not, however, directly applicable to our more complex case of two-stage selection. The Psychometric Research and Service Unit of the Indian Statistical Institute has been doing some original theoretical work on this problem. Fuller reports, with proofs of formulae, etc., are to be published later. Briefly, the method developed (and applied for making the corrections in Table A.1) is as follows:

$$S_{11} \equiv \begin{bmatrix} s_{11} & s_{12} & \dots & s_{1n-1} \\ s_{21} & s_{22} & \dots & s_{2n-1} \\ \dots & \dots & \dots & \dots \\ \dots & \dots & \dots & \dots \\ s_{n-1,1} & s_{n-1,2} & \dots & s_{n-1,n-1} \end{bmatrix}$$

$$S_{22} \equiv ((s_{nn}))$$

$$S_{12} \equiv \begin{bmatrix} s_{1n} \\ s_{2n} \\ \vdots \\ \cdot \\ s_{n-1n} \end{bmatrix}$$

Procedure. Σ_{11} and all S 's are known quantities.

From assumption (1) we have

$$\Sigma'_{12} = S'_{12} S_{11}^{-1} \Sigma_{11} \quad \dots \quad (1)$$

From assumption (2) we have

$$\Sigma_{22} = S_{22} - S'_{12} S_{11}^{-1} S_{12} + \Sigma'_{12} \Sigma_{11}^{-1} \Sigma_{12} \quad \dots \quad (2)$$

Substituting the value of Σ'_{12} from (1) in (2) we get the value of Σ_{22} . Proceeding this way at each stage we can estimate the population matrix Σ .

Appendix B

SIGNIFICANCE TESTS

The tables in this paper illustrate some of the outstanding features of the data available. They do not, of course, *prove* anything—they merely help the non-statistician to understand the “meaning” of what the statistician finds. The data in them has been summarized and organized primarily for this purpose.

Significance tests have, however, been calculated on the raw data of the first five tables, combined in various ways. The problems involved in combining the raw data—and the reasons why they must be combined—have been discussed earlier in this paper. For example, if we take the full frequency distributions on which Table 4 is based, we find the “number of years late” stretching from 0 to 5. But the extreme right of these distributions is affected by a change in University policy about failures, which took place during the years covered by the New Selection Method groups. Thus we must combine the data of those detained one or more years to cancel out the effect of this change in University policy. At the other extreme, it is generally felt that a candidate may fall half year behind ‘just by chance’. Sometimes a new student doesn’t know what he is up against until his first examination, and it takes a failure to get him down to work. Sometimes special factors—a temporary illness, a serious emotional upset—may occur just at examination time. And the less-than-perfect reliability of the examinations themselves allow for a certain number of ‘chance’ failures. Thus, it seems best to combine those who are half year late with those who are on time, in making our statistical analysis. Analyses have, of course, been done with and without this combination—but it is not surprising that the uncombined data sometimes do not show significance.

A more serious problem is faced in the skewness of the distributions. Each of our measures of ability—years detained and papers failed—has a definite limit, better than which no candidate can possibly score. Thus we have a serious skewing, a piling up of ‘highest’ scores, which is purely an artifact of the measuring (i.e. nobody is allowed to finish in less than five years). It is as though we had a thermometer which could register only up to 100°F, so that all hotter days—whether 101° or 118°—would be recorded as exactly equal in temperature, i.e. just 100°. It would not be possible to calculate, accurately, either the mean or the standard deviation of the temperature. Similarly, we cannot use the usual powerful tests for the significance of the difference between means and distributions, but must use tests which do not require these statistics.

One such test is the p -test for the difference between proportions. This is frequently given in the form:

$$t = \frac{D_p}{\sigma_{D_p}}$$

$$\sigma_{D_p} = \sqrt{\frac{p_1 q_1}{N_1} + \frac{p_2 q_2}{N_2}}$$

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where D = the difference between the proportions
 p_1 = the proportion of the first group
 possessing the characteristic
 $q_1 = 1 - p_1$
 N_1 = the number of cases in the first group

and p_2 , q_2 , and N_2 refer to the same characteristics of the second group.

A more precise form of the standard error the difference between two proportions is the following:

$$D = \sqrt{\frac{pq}{N_1} + \frac{pq}{N_2}}$$

where p = the proportion of the combined groups possessing the characteristic

$$q = 1 - p$$

and the remaining symbols have the same meaning as above. This formula is preferable when N is small, or the $p : q$ split far from the median. It is this latter formula which we have used.

The significance tests for the various tables are summarized in Table B.1.

TABLE B.1. SUMMARY OF TESTS OF SIGNIFICANCE
ON DIFFERENCE BETWEEN OLD AND NEW
SELECTION METHODS

table	part	D_F/σ_{DP}	probability
1		2.87	.01
4		2.14	.03
5	division I	.68	.48
5	divisions II and III	1.96	.05

Note: All data dichotomized by combining "On Time" with "One-half Year Late", and "Failures" with "One or More Years Late."

Table 1. Data were dichotomized by combining the "On Time" and "One-half Year Late" groups and combining the "Failures" with the "One or More Years Late" group. The difference in proportions was significant at the 1 percent level. (This was also true when "failures" were dropped out, and only those who completed the course compared with each other).

Tables 2 and 3. As explained above, the artificial skewing of the data prevents the calculation of the "true" means and variance, and therefore of significance tests for these tables. It is true that means have been calculated for Table 2, and that a heavy burden of interpretation has been placed on them. This seems justified in

the light of the significance of Table 4. Note, however, that the purposes of Tables 2 and 4 differ. In Table 4 we are using the "detention rate" as a measure of the supposed *ability* of the students to pursue medical studies. We cannot calculate mean number of years required to complete the course as a measure of ability, as no student is permitted to finish in less than five years. In Table 2, however, our primary interest is in the economic cost of *extra* years spent in the institution. Therefore, it is appropriate in this context to calculate means.

Table 4. Data were dichotomized as has been explained. The difference between the proportions who furnished "half a year or less late" who were selected under the Old and the New methods is significant at the 3 percent level.

Table 5. When the proportion of First Divisioners who finish their medical course within half a year of the prescribed time is examined, the difference in this proportion between Old and New selection methods is negligible. For Second and Third Divisioners, however, the difference is significant at the 5 percent level of significance.

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LABOUR FORCE MEASUREMENT FROM INDIAN CENSUS DATA

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SUMMARY. This article gives a survey of the attempts made in India for a measurement of labour force from census data. Incidentally, this article describes the growth of "means of livelihood" tabulations in India.

1. DEFINITIONS

We have used the following definitions. A person who is capable of maintaining himself on his own income is an "independent earner;" but when he has income in cash or kind, and this is insufficient for self-maintenance, he is said to be "partly dependent." If a person does some work but has no income in cash or kind then he is "working dependent."

"Principal earners" are those having income in cash or kind and, therefore, cover both independent and partly dependent earners. Actual workers include principal earners and working dependents. Those who do not fall under the category of actual workers are "total dependents."

The concepts of labour force and working force are not well-defined in India. The working force is the fraction of the total population engaged in some sort of productive enterprises. The potential labour force is that fraction of the population which can be brought within the working force either by legislation or through national development. The potential labour force will, thus, include the working force. When corrections for unemployment and unproductive works are negligible, these two magnitudes will be approximately equal.

One difficulty in measuring labour force accurately lies with the working dependents who work but have no income in cash or kind. Fortunately, however, earnings from these working dependents contribute a small fraction to the total national income. As such the total number of principal earners may, for certain purposes, be taken as a rough measure of the total labour force in a country.

In the earlier censuses in India, actual workers were recorded without any further classification. Working dependents were not separately tabulated before the 1931 census, but, due to a change in definition, actual workers of the 1911 census can be regarded as principal earners. In the three following sections we shall describe the collection and tabulation of information relating to dependency status and occupation in the Indian censuses upto 1941.

2. INFORMATION COLLECTED IN DIFFERENT CENSUSES

There have been a great many changes at successive censuses in the character of the "means of livelihood" information collected, and in the method of tabulating it. In 1881, occupation was recorded for actual workers only. Boys and girls at school and small children and women who performed no regular work were excluded. When a person had two or more occupations, he was considered as following the occupation whence his income was chiefly derived; but if he had combined agriculture with any other profession or trade, both the occupations were shown.

In 1891, it was decided to record, not the occupations of actual workers, but the means of subsistence of the whole population, whether workers or dependents. Enumerators were asked to add the word 'dependent,' if necessary, after the name of the occupation or means of subsistence, and to enter dual occupations only where one of them was connected with agriculture.

In 1901, (i) the principal occupation and (ii) the (most important) subsidiary occupation, if any, were recorded for actual workers. This method continued upto 1921. In 1911, however, women and children who looked after fields and other household affairs, (i.e., working dependent), were not considered as workers but as dependents, whereas in 1921, such persons were included in the category of actual workers. This tended to increase the number of actual women and children workers in 1921.

In 1931, the convention of excluding persons having no definite personal occupation was adopted, and this lowered the percentages of actual workers among women and children in 1931 compared with those in 1921. In this census for the first time, principal earners and working dependents were separately recorded.

In 1941, principal earners were further classified into independent self-supporting persons and partly dependent earners. Information relating to subsidiary occupation, industry and employment status of independent persons and dependency means of livelihood for dependents was also collected.

3. CENSUS TABULATION SCHEMES

In 1881, occupation details were tabulated according to the major occupation of actual workers.

In 1891, dual occupations were tabulated, but as mentioned above, one of them was agriculture. For non-agriculturists only one occupation was recorded and tabulated; no use was made of the second occupation (in order of importance) of the persons concerned. The procedure of 1891 of tabulating simply the means of subsistence ignoring the distinction between workers and dependents which could be made, was unsatisfactory. It was also found inconvenient to record the second occupation of agriculturists in the same column as the main occupation.

In the census tabulations of 1901, given in the Table below, three columns were used—the first two for the principal and the subsidiary occupations of actual workers, and the third for the means of subsistence of dependents. Statistics were compiled for the number of persons who were primarily agriculturists, and had some secondary means of subsistence; but again no use was made of the subsidiary occupations of non-agriculturists.

TABLE 1. OCCUPATION DETAILS IN CENSUS TABULATIONS OF 1901

occupation or means of subsistence of actual workers				means of subsistence of dependents	
principal		subsidiary			
(1)		(2)		(3)	
male	female	male	female	male	female

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The same conventional methods of tabulation were adopted in 1911, but subsidiary occupations were tabulated in the different tables for agriculturists as well as for non-agriculturists. Since the persons looking after fields and household affairs etc. were excluded in 1911 from the category of actual workers, the figures of actual workers of 1911 are not comparable with those of 1901, in which such working dependents were shown under actual workers. The figures of actual workers in 1921 are comparable with those in 1901, but not with those in 1911. This is due to the inclusion of working dependents under principal occupation of actual workers in 1921.

In the census tabulation of 1931, working dependents were shown separately. In fact, the 1931 figures of total earners following as principal occupation correspond to the 1911 figures of actual workers, and the total of principal earners and working dependents of 1931 are comparable with the actual workers of 1921. The tabulation of subsidiary occupations was the same for the censuses of 1911, 1921 and 1931.

In the census of 1941, principal earners of 1931 were shown under two sub-headings (i) principal occupation without subsidiary and (ii) principal occupation with subsidiary. These principal earners with subsidiary occupations were shown according to the subsidiary means of livelihood groups in different columns. In contrast with the tabulations in 1931, there were columns: for the means of livelihood distribution of partly dependents and for the dependents which includes working dependents of previous censuses. All these dependents were distributed in census tabulations according to the means of livelihood of the persons on whom they depended.

Such detailed occupational distribution from the census slips of 1941 was not taken up uniformly for the whole country. Complete tabulation of occupations was taken up for all the then Native States and Delhi whereas a sample tabulation based on a 2% sample of the original census slips was undertaken for West Bengal, Assam, Bihar, Orissa, Madras, Bombay, Madhya Pradesh, Uttar Pradesh and Punjab. The particulars from these sample slips were transferred to Hollerith cards in the Indian Statistical Institute. At the time of transferring these particulars to Hollerith cards, the means of livelihood of the wholly dependent persons were not considered. Due to this omission it was not possible to obtain the occupational distribution of wholly dependent persons. In the sample tabulation schemes, principal earners were broadly divided into two classes: (i) independent or self-supporting persons, and (ii) partly dependent persons. Information about wholly dependent persons was totally ignored in the sample tabulation, but self-supporting or independent persons were further partitioned into five different sub-classes according as they had no subsidiary occupation or their subsidiary occupation fell under class A, or class B, or class C, or class D. (See Bertillon scheme of tabulation under 4). These earners with subsidiary means of livelihood were not, however, distributed according to their subsidiary means of livelihood. Thus, for the Native States and Delhi, the sub-classes (ii), (iii), (iv) and (v) under self-supporting persons were included under the single heading "principal earners with subsidiary means of livelihood". On the other hand, for these states, the distribution of subsidiary means of livelihood was tabulated, as in 1931; one more column for recording the means of livelihood of dependents (including working dependents) was provided.

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TABLE 2. CENSUS TABULATION IN 1931 : ALL-INDIA

total following occupation		as principal occupation		as working dependents		as subsidiary to other occupation	
male	female	male	female	male	female	male	female
for provinces							
total principal earners		total working dependents		total following occupation as subsidiary to others			
male	female	male	female	male	female	male	female

TABLE 3. CENSUS TABULATION IN 1941
(for native states and Delhi)

as principal means of livelihood without subsidiary means of livelihood		as principal means of livelihood with subsidiary means of livelihood		as subsidiary means of livelihood		as means of livelihood of partly dependents		total dependents on this means of livelihood	
male	female	male	female	male	female	male	female	male	female
(for nine provinces only)									
independent or self-supporting persons									supporting means of livelihood of the partly dependent
total	without subsidiary M/L	with class A as subsidiary M/L	with class B as subsidiary M/L	with class C as subsidiary M/L	with class D as subsidiary M/L				
male	female	male	female	male	female	male	female	male	female

4. CENSUS TABULATION SCHEMES BY MEANS OF LIVELIHOOD CLASSES

In 1881, the English system of classification was adopted with a few minor changes but actual experience showed that it was unsuitable for Indian conditions. In 1891, therefore, Mr. Bains devised an entirely new scheme with 24 orders, 77 sub-orders and 478 natural groups.

In the next census while classes and orders shown above remained unchanged, some of the old groups were amalgamated or transferred to other sub-orders, and certain new groups were created with the object of distinguishing (a) makers from sellers, and (b) workers in factories from those engaged in handicrafts. This resulted in raising the numbers of sub-orders and groups to 79 and 520 respectively.

The above classification also was found to be unsatisfactory. It was realised, after the 1901 census, that the particulars necessary for separating factory workers from those employed in handicrafts were not available in India. The problem of occupational classification arose at this time in western countries also. After a careful study of the schemes in actual use in different countries, Jacques Bertillon devised one suitable for general adoption.

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He consulted directors of twenty statistical bureaux and after revising his scheme in the light of their suggestions, placed it before the International Statistical Institute which approved it and recommended it for general adoption.

TABLE 4. MEANS OF LIVELIHOOD CLASSIFICATION DEvised BY BAINS

class	description of class	order	description of order
A	government	I	administration
		II	defence
		III	foreign and feudatory state service
B	pasture and agriculture	IV	cattle breeding
		V	agriculture
C	personal service	VI	personal services
D	the preparation and supply of material substances	VII	food and drink
		VIII	light, firing and forag
		IX	building
		X	vehicles and vessels
		XI	supplementary requirements
		XII	textile fabrics and dress
		XIII	metals and precious stones
		XIV	glass, pottery and stonewall
		XV	wood, cane and leaves
		XVI	drugs, gums etc.
		XVII	leather
E	commerce, transport and storage	XVIII	commerce
		XIX	transport and storage
F	professions	XX	learned and artists professions
		XXI	sports and amusements
G	indefinite occupations and means of subsistence independent of occupation	XXII	general labour
		XXIII	indefinite or disreputable occupation
		XXIV	independent of work

Bertillon claimed that his classification of occupations was extremely logical and adaptable to the requirements of advanced as well as backward countries. All occupations were divided into four broad classes comprising of twelve sub-classes with three series of minor sub-divisions of 61,206 and 499. For international comparisons only the major heads should be considered; the number of minor heads could be reduced or increased according to local requirements. The scheme adopted in India in 1911 contained 4 classes, 12 sub-classes, 55 orders and 169 groups. The reduction of the number of orders is due to the amalgamation of two of those orders given in Bertillon's scheme, viz., 'maritime and fresh water transport' (orders 22 and 23) and the omission of five others, viz., those for 'nomads' (order 3), 'other industries' (order 21), 'persons temporarily unemployed' (order 57), 'persons without any occupation' (order 58) and 'occupation unknown' (order 61).

Class A : Production of raw materials. Sub-class (I) Exploitation of the surface of the earth. Orders : (1) Pasture and agriculture :—(a) ordinary cultivation, (b) growers of special products and market gardening, (c) forestry, (d) raising of farm stock, (e) raising of small animals. (2) Fishing and hunting. Sub-class II : Extraction of minerals. (3) Mines, (4) Quarries, (5) Salt, etc.

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Class B: Preparation and supply of material substances. Sub-class III: Industry, (6) Textiles, (7) Hides, skins, etc. (8) Wood, (9) Metals, (10) Ceramics, (11) Chemical products. (12) Food industries. (13) Industries of dress and toilet. (14) Furniture industries. (15) Building industries. (16) Construction of means of transport. (17) Production and transmission of physical forces. (18) Industries of luxury and those pertaining to literature, arts and sciences. (19) Industries concerned with refused matters. Sub-class IV: Transport. (20) Transport by water. (21) Transport by road. (22) Transport by rail. (23) Post Office, telegraph and telephone services. Sub-class V: Trade. (24) Banks, establishment of credit, exchange and insurance. (25) Brokerage commission and export. (26) Trade in textiles. (27) Trade in skins, leather and furs. (28) Trade in wood. (29) Trade in metals. (30) Trade in pottery. (31) Trade in chemical products. (32) Hotels, cafes, restaurants, etc. (33) Other trade in foodstuffs. (34) Trade in clothing and toilet articles. (35) Trade in furniture. (36) Trade in building. (37) Trade in means of transport. (38) Trade in fuel. (39) Trade in articles of luxury and those pertaining to letters, arts and the sciences. (40) Trade in refuse matters. (41) Trade of other sorts.

Class C: Public administration and liberal arts. Sub-class VI: Public force. (42) Army. (43) Navy. (44) Police. Sub-class VII: Public administration. (45) Public administration. Sub-class VIII: Professions and liberal arts. (46) Religion. (47) Law. (48) Medicine. (49) Instruction. (50) Letters, arts and sciences.

Class D: Miscellaneous. Sub-class IX: Persons living on their own income. (51) Persons living principally on their income. Sub-class X. Domestic services. (52) Domestic services. Sub-class XI. Insufficiently described occupations. (53) General terms which do not indicate a definite occupation. Sub-class XII. Unproductive. (54) Inmates of jails, asylums and hospitals. (55) Beggars, vagrants and prostitutes.

The tabulation scheme of 1921 was exactly similar to that of 1911. Against each occupational class, the number of actual workers by sex was recorded but there were 56 orders and 191 natural sub-groups instead of 55 and 169 as in 1911. An order (56) covering unclassified non-productive industries was added.

In 1931, attempts were made to simplify the scheme of 1921 by widening the categories and reducing the number of orders to 55 and increasing that of groups to 195. The order 3 (mines) in sub-class II (extraction of minerals) was sub-divided into two orders; 3 (metallic minerals) and 4 (non-metallic minerals). The orders 4 (quarries) and 5 (salt etc.) of 1921 were amalgamated in 1931, and constituted the group 40 (salt, saltpetre and other saline substances). Besides this major change, there were some other minor orientations of orders and groups. Thus the group 101 (persons employed in places of public entertainments) appearing in order 18 of sub-class III in 1921 was shifted to the group 183 (managers, and employees of places of public entertainment, race courses, societies, clubs) of order 49 under sub-class VIII (professions and liberal arts) in 1931. Similarly, witches and wizards included along with beggars and vagrants in group 189 of 1921 were classed with astrologers, fortune-tellers mediums of group 181 of order 49 in 1931. These beggars and vagrants formed a separate group 193 of order 54 (beggars, vagrants and prostitutes). Saddle-cloth makers and embroiderers were re-classified under workers in textiles instead of in leather. Sellers of finished articles were placed under trade in textiles and not under trade in transport as done previously. Sellers of grass-hoppers were re-classified under trade in food stuff instead of under trade of other sorts, and so on.

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In the tabulation of occupation distribution of 1941, the revised Bertillon scheme of 1931 was repeated in all its details upto 55 orders, but there were 236 groups in 1941 as against 195 of 1931. The absolute figures of 1941 were comparable with those of 1931 upto 55 orders.

5. Y-SAMPLE ESTIMATES FOR 1941

The problem of estimating the available labour force in the country became further complicated after the independence of India and the integration of the Native States with the Republic of India. In most of the cases, smaller states integrated with the neighbouring provinces and bigger states formed independent states themselves. Besides this, there were changes of state boundaries. Had the complete means of livelihood tables been prepared from the original census slips the provincial means of livelihood tables would not have been applicable for the present layout of some of the provinces. Fortunately however, occupation tables were not prepared from the original census slips but 2% Y-slips* stored for the purpose were under tabulation at the time of these changes. The Government of India decided to build up 'means of livelihood' tables on the basis of the changed layout of 1948 and the occupation tables of different states were prepared by giving due consideration for transfer of areas and integration of States. Unfortunately, Y-slips for all the areas could not be traced, and the final means of livelihood tables were prepared without incorporating the areas for which Y-slips were not available. Naturally the provincial layouts were not complete everywhere. The population coverages of occupation tables and age-tables from Y-slips were the same everywhere except for West Bengal where Y-slips of the districts of Midnapore, Bankura and West Dinajpur were considered unsuitable for means of livelihood tabulations.

To study the differences between the distributions of principal earners in the 1931 census figures and the 1941 Y-sample estimates, a comparison of the total number and percentages of principal earners (for both sexes) was made for each district and state.

Table 10 shows Y-sample estimates of the total number of the principal earners for each province. For provinces where the coverage of means of livelihood tables were not complete the number of earners for the area not covered has been estimated. If A = the actual population of the province, B = the total population covered in the Y-sample and M = the total number of principal earners from the Y-sample, then the 'estimated' number of principal earners (shown in Table 1) is $M(A-B)/B$. These values were shown for the provinces for which coverage was not complete.

Table 11 gives the distribution for both the census years, the total earners by sex for all districts. Tables 12 and 13, on the other hand, shows the sexwise distribution of independent earners and partly dependent earners of 1941 by states and by means of livelihood orders.

The information given in Tables 5 and 6 below indicate some broad features of the above mentioned tables. Table 5 gives for different A class states the upper and lower limits of the percentages of earners of both sexes in the districts. Table 6 compares the distributions of 10,000 principal earners among the occupational classes and sub-classes, according to the 1931 census and the 1941 Y-sample estimates.

* The 2% sample of slips of the 1941 census in India are known as Y-sample slips or Y-slips after the name of M.W.M. Yeatts, the then Census Commissioner of India.

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TABLE 5. LIMITING VALUES OF PERCENTAGE OF INDEPENDENT EARNERS IN
DIFFERENT STATES (PROVINCES) OF INDIA

state	male				female			
	highest		lowest		highest		lowest	
	district	percentage of earners	district	percentage of earners	district	percentage of earners	district	percentage of earners
West Bengal	Calcutta	67.77	Malda	39.64	Jalpaiguri	21.96	Malda	5.83
Bihar	Palamau	54.24	Gaya	45.80	Palamau	20.75	Santal Parganas	9.15
Orissa	Sambalpur	62.98	Koraput	45.78	Sambalpur	10.97	Puri	8.22
Assam	Khasi State	50.28	Lusai Hills	36.67	Khasi Jaintia Hills	32.24	Lushai Hills	2.66
Madras	Nilgiris	56.84	Chittor	43.88	South Canara	23.10	Madras	7.65
Bombay	Bombay Municipality	66.44	Ratnagiri	39.22	Bombay Suburban	16.88	Rajputana States	4.86
Madhya Pradesh	Raigarh	57.31	Bastar	38.30	Drug	21.81	Yeotmal	7.08
Uttar Pradesh	Rampur	62.54	Fatehpur	40.72	Pratabgarh	22.49	Tehrigarhal	2.85
Punjab	Ambala	57.24	Rohtak	42.51	Kangra	20.46	Simla	4.26

TABLE 6. DISTRIBUTION OF EARNERS BY OCCUPATIONAL CLASSES AND SUB-CLASSES

class & sub-class	means of subsistence	distribution per 10000 principal earners					
		total		male		female	
		1931	1941	1931	1941	1931	1941
all occupations		10000	10000	7777	7283	2223	2717
A. production of raw materials		6986	6280	5499	4722	1487	1558
I. exploitation of animals & vegetations		6960	6245	5479	4692	1481	1553
II. preparation and supply of material substances		26	35	20	30	6	5
B. exploitation of minerals		1831	1640	1420	1320	411	320
III. industry		1082	1009	822	789	260	220
IV. transport		172	126	159	124	13	2
V. trade		577	505	439	407	138	98
C. public administration & liberal arts		307	272	283	252	24	20
VI. public force		66	51	66	50	—	—
VII. public administration		77	74	74	72	3	2
VIII. professions & liberal arts		164	147	143	130	21	17
D. miscellaneous		876	1808	575	989	301	819
IX. persons living on their income		15	23	12	18	3	5
X. domestic services		215	265	144	75	71	190
XI. insufficiently described occupation		542	1455	350	851	192	604
XII. unproductive		104	65	69	45	35	20

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TABLE 7. DISTRIBUTION OF EARNERS IN THE 1941 CENSUS

	male		female		total	
	population (in mill)	percentage of total	population (in mill)	percentage of total	population (in mill)	percentage of total
1. population (from 1941 census)	164.0	51.43	154.9	48.57	318.9	100.00
2. total earners	89.0	27.91	30.6	9.60	119.6	37.51
(a) independent	79.9	25.06	17.1	5.36	97.0	30.42
(b) partly dependent	9.1	2.85	13.5	4.24	22.6	7.09
3. agriculture	53.8	16.87	16.5	5.17	70.3	22.04
(a) independent	49.0	15.37	9.2	2.88	58.2	18.25
(b) partly dependent	4.8	1.50	7.3	2.29	12.1	3.79
4. industries including com- merce and transport	20.4	6.40	5.8	1.82	26.2	8.22
5. service of misc. occupation	14.2	4.45	8.0	2.51	22.2	6.96
6. unproductive work	0.6	0.19	0.3	0.09	0.9	0.28

The frequency distributions of percentages of principal earners (Table 8) over all the districts of class I States of India, and over the districts of U.P. and Punjab separately, show that the distribution patterns for the two census years 1931 and 1941 are not identical. It can be seen that the frequency distribution over all districts of Class I States is more symmetrical in 1941 than in 1931. Further, the maximum frequency for U.P. in 1931 lies in the interval 60%—65%, while that for 1941 is in the interval 55%—60%. This led us to study the percentages of individual districts as well as the provincial values. Except for U.P. and Punjab, there was fairly close agreement between districtwise percentage figures (for males) for the 1931 census and the 1941 Y-sample estimates. (The apparently small changes were, however, quite frequently significant, in view of the large sample sizes). In Uttar Pradesh there has been a sharp fall in these figures between 1931 and 1941; in Punjab, on the other hand, the figures have increased appreciably.

On examination it was found that in 1941 the district percentage figures for U.P. and Punjab were at par with the district percentages of other states. In fact Uttar Pradesh records very high and Punjab very low percentages of earners in 1931 compared with other provinces in the same year. It is quite possible that these disparities are due to the use of a definition of principal earners different from the rest of India or to a differential response to the non-cooperation movement in India at that time.

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TABLE 8. FREQUENCY DISTRIBUTION OF PERCENTAGES OF PRINCIPAL
MALE EARNERS OF INDIA

range of percentage values	frequency					
	India*		U.P.		Punjab	
	1931	1941	1931	1941	1931	1941
below 35	1	0	0	0	0	0
35—40	1	1	0	0	0	0
40—45	6	5	0	0	1	0
45—50	25	23	0	9	5	0
50—55	32	68	0	14	4	2
55—60	46	60	7	18	2	8
60—65	50	18	33	6	0	2
65 & above	14	8	10	1	1	1
total	175	183	50	50	13	13

* Including Punjab and U. P.

Table 9 shows the (unweighted) means and variances of the percentage figures for the districts in each of the Class I States of India. The variances differ widely between the provinces and in two cases between years for the same province. The observed skewness of the overall frequency distributions of Table 8 may be due to the variation of the means and variances among the provinces.

TABLE 9. ESTIMATED VARIANCES AND MEANS OF DISTRICT PERCENTAGES
OF PRINCIPAL MALE EARNERS OF CLASS I STATES OF INDIA

state	degrees of freedom		estimated variances of district percentages		*F	mean percentage of principal earners	
	1931	1941	1931	1941		1931	1941
West Bengal	10	10	52.922	52.447	1.009	54.015	53.463
Assam	11	11	39.363	29.374	1.340	52.581	50.411
Bihar & Orissa	20	27	52.539	36.156	1.453	55.162	57.127
Madras	24	24	9.151	10.116	1.105	56.192	52.738
Bombay	20	21	47.703	27.937	1.708	50.794	55.562
Madhya Pradesh	21	21	45.375	16.223	2.797*	56.907	55.205
Uttar Pradesh	49	49	8.735	30.012	3.436**	62.912	54.689
Punjab	12	12	48.531	28.898	1.679	51.858	58.687

The percentages of principal earners among females differ greatly for different provinces, while those for males are relatively stable. The problem of labour force estimation should be undertaken separately for males and females on a district basis. For the male or female population of most districts, the proportion of principal earners remains practically the same from census to census and this fact can be utilised in the intercensal period. The percentage of male principal earners at any time can be estimated more precisely than that of females, and so any attempt for estimating the labour force jointly for males and females is likely to introduce greater variability. For identical reasons districts should not be pooled together.

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TABLE 10. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS OF PROVINCES BETWEEN
1931 CENSUS AND 1941 Y-SAMPLE ESTIMATES
(Figures in 00)

province	male				female			
	total population		principal earners		total population		principal earners	
	1931	1941	1931	1941	1931	1941	1931	1941
1. *West Bengal ¹ estimated	93718	89043	50373	49391	82917	72284	9038	7921
		29300		16252		27748		3041
2. Bombay ² estimated	130379	125962	79622	70098	123047	116964	20785	26990
		24838		13822		24045		5550
3. Bihar	163366	183255	91621	99859	160316	182206	39830	39102
4. Orissa ³ estimated	60423	58995	35263	36251	64488	62453	13607	15969
		8070		4959		8162		2087
5. *Assam ⁴ estimated	37780	41698	19690	20869	33945	37394	5500	9136
		4213		2107		3822		933
6. *Punjab ⁵ estimated	58736	68421	29566	39376	48996	58340	2145	14205
		111		65		104		25
7. Madhya Pradesh	89469	98452	51246	54650	89396	98325	24123	31981
8. Uttar Pradesh ⁶ estimated	260632	293201	163960	157692	235517	265756	43130	33541
		2228		1202		2287		286
9. Madras	218688	245574	121603	128034	223278	247849	47803	51065
10. Delhi	3695	5352	2217	3269	2667	3827	192	241
11. Rajputana	58850	74767	34572	36796	53407	67772	7475	7969
12. Mysore	33540	37633	19371	19939	32033	35658	4134	3714
13. Hyderabad	73700	83468	32622	46162	70661	79918	15617	23933
14. Kashmir	19384	21299	7521	11971	17079	18917	560	2211
total	1302360	1495880	739247	812764	1236747	1413831	233939	279900
all India estimate	1431868	1639693	793051	890990	1359484	1548757	252291	306375

* Provinces affected with the partition of India and 1931 figures of this table are estimated figures.

¹ Does not include Bankura, Midnapore, West Dinajpur and Cooch Behar Districts of West Bengal.

² Does not include Deccan States Agency, Gujarat States Agency, Western India States Agency and Abu State of Bombay.

³ Does not include Mayurbhanj and Patna States which are parts of Orissa.

⁴ Includes Manipur but excludes Garo Hills, Sadiya Frontier Tract and Balipara Frontier Tract of Assam.

⁵ Does not include Palandi State of Punjab.

⁶ Does not include Banaras State of Uttar Pradesh.

TABLE 11.1. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941 Y-SAMPLE ESTIMATES (*WEST BENGAL AND ASSAM)

(Figures in 00)

district	male				female			
	population		principal earners		percentage of earners		population	
	1931	1941	1931	1941	1931	1941	1931	1941
WEST BENGAL								
Burdwan	8149	9988	3604	5857	44.23	58.64	7608	8919
Birbhum	4727	5245	2532	2630	53.56	50.14	4749	5238
Hooghly	5921	7386	3576	4122	60.40	55.81	5221	6392
Howrah	5991	8334	3094	4724	51.64	56.68	4998	6569
*24-Parganas	15639	20140	9371	10753	59.92	53.39	13248	16555
Calcutta	7925	14524	5623	10138	70.95	69.80	3713	6565
*Nadia	3700	4319	1869	2156	50.51	49.92	3519	4084
Murshidabad	6835	8245	3321	3675	48.59	44.57	6872	8160
*Jalpaiguri	4039	4605	2314	2449	57.41	53.18	3352	3852
Darjeeling	1701	1999	933	1061	54.85	53.08	1495	1765
*Malda	3622	4258	1711	1826	47.24	42.88	3583	4185
total	68249	89043	37948	49391	55.61	55.47	58358	72284
ASSAM								
*Cachar	4224	5405	2057	2781	48.70	51.45	3813	4863
Khasi & Jaintia Hills	554	607	310	322	55.96	53.05	545	580
Naga Hills	895	938	430	541	48.04	57.68	893	958
Lushai Hills	592	739	321	278	54.22	37.62	652	789
Goalpara	4703	5394	2148	2532	45.67	46.94	4125	4748
Kamrup	5133	6734	2746	3070	53.50	45.59	4634	5908
Darrang	3171	3945	1946	2149	61.37	54.47	2677	3423
Nowgong	2986	3799	1597	1793	53.48	47.20	2640	3309
Sibsagar	4963	5706	2695	2892	54.30	50.68	4370	5042
Lakhimpur	3991	4851	2491	2646	62.42	54.55	3255	4097
Manipur	2158	2492	865	1269	40.08	50.92	2298	2629
Khasi State	911	1088	485	596	53.24	54.78	889	1048
total	34281	41698	18091	20869	52.77	50.05	30791	37394
total							4876	9136
							15.84	24.43

* Districts affected with the formation of East Pakistan. The totals for West Bengal and Assam exclude area for which Y-slips could not be traced at the time of preparing age-tables and means of livelihood tables.

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TABLE 11.2. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941 Y-SAMPLE ESTIMATES (BIHAR AND ORISSA)

(Figures in 00)

district	male				female				
	population		percentage of earners		population		percentage of earners		
	1931	1941	1931	1941	1931	1941	1931	1941	
	BIHAR								
Patna	9561	11195	5768	6353	8904	10425	2419	2706	21.17
Gaya	11936	13868	6997	6824	11948	13886	3511	2417	29.39
Shahabad	9991	11757	6067	5776	9944	11529	3084	2777	31.01
Saran	12200	13742	7046	7240	12664	14864	3405	3516	26.89
Champan	10810	12131	6648	7413	10647	11845	2901	3717	27.25
Muzaffarpur	14438	15843	8466	8956	14372	16604	2828	3255	18.89
Darbhanga	15710	16981	8804	9169	15951	17590	2482	3566	15.56
Monghyr	11458	12841	6960	7163	11414	12805	3404	2833	29.82
Bhagalpur	11306	12259	6395	6620	11040	11830	2824	2235	25.58
Purnea	11297	12296	6441	7772	10569	11607	1327	2200	12.56
Santal Parganas	10259	11214	6258	5614	10256	11131	4353	1694	42.44
Hazaribagh	7520	8795	3455	4705	6354	8718	2085	1867	32.81
Ranchi	7771	8357	2378	4094	7901	8397	1324	1349	16.76
Palamau	4098	4574	2239	2691	4090	4554	1361	1503	33.28
Manbhum	9400	11057	4941	5812	8709	9747	1349	1905	15.49
Singbhum	4694	5820	2228	3024	4604	5627	782	1103	16.99
Chotonagpur	917	1007	530	633	949	1047	391	459	41.20
total	163366	183737	91621	99859	160316	182206	39830	39102	24.84
	ORISSA*								
Cuttack	10968	11669	6043	7124	12203	12645	1589	2177	13.02
Balasore	4805	5085	2800	3236	5101	5209	877	824	17.19
Puri	5002	5315	2984	3267	5349	5704	794	942	14.84
Sambalpur	5221	5808	2478	4097	5435	6018	1065	2082	14.60
total	25996	27877	14305	17724	28088	29576	4325	6025	15.39
									20.37

* The total does not represent Orissa State. All the districts of Orissa are not shown for want of 1931 figures.

TABLE 11.3. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941
Y-SAMPLE ESTIMATES (MADRAS)

(Figures in 00)

district	male						female					
	population		principal earners		percentage of earners		population		principal earners		percentage of earners	
	1931	1941	1931	1941	1931	1941	1931	1941	1931	1941	1931	1941
Vizagapatam	16853	18779	9444	9926	56.04	52.86	17994	19680	3856	5334	21.43	27.10
Godavari East	9493	10763	5632	5785	59.33	53.75	9713	10856	2376	2428	24.46	22.37
Godavari West	6023	6876	3705	3663	61.51	53.27	6207	6925	1602	1528	25.81	22.06
Kistna	6357	7349	3800	3998	59.78	54.40	6185	7094	1361	1348	22.00	19.00
Guntur	10200	11559	6045	6535	58.75	56.54	10067	11214	2262	2675	22.47	23.85
Nellore	7443	8121	4160	4494	55.89	55.34	7419	8049	1549	1945	20.88	24.16
Cuddapah	4839	5411	2548	2962	52.66	54.74	4655	5155	890	1245	19.12	24.15
Kurnool	5202	5797	2991	3214	57.50	55.44	5047	5666	1378	1818	27.30	32.09
Bellary	4930	5347	2764	2865	56.06	53.58	4768	5167	1164	1484	24.41	28.72
Anantapur	5395	6040	3034	3334	56.24	55.20	5109	5674	1281	1829	25.07	32.23
Madras	3412	4075	1964	2181	57.56	53.52	3060	3700	279	322	9.12	8.70
Chingleput	8372	9274	4734	4570	56.56	49.28	8180	8966	1437	988	17.57	11.02
Chittoor	7383	8354	3953	4473	53.54	53.54	7087	7970	1196	1870	16.87	23.46
N. Arcot	11316	12937	6057	6200	53.53	47.92	11354	12838	2206	2124	19.43	16.54
Salem	12117	14385	6600	7276	54.47	50.58	12222	14308	2951	2541	24.14	17.76
Coimbatore	12182	14090	6567	7466	53.91	52.99	12268	14007	2800	2640	22.82	18.85
S. Arcot	12251	13096	6874	6817	56.11	52.05	13294	12992	2157	2151	17.55	16.56
Tanjore	11443	12471	6534	6638	57.13	53.23	12422	13163	2153	2031	17.35	15.43
Trichinopoly	9500	10834	5457	6047	57.44	55.82	9943	11107	2268	2090	22.81	18.82
Madura	10663	12119	6030	6159	56.55	50.82	10984	12347	2572	2488	23.42	20.15
Ramnad	8722	9485	4656	4723	53.38	49.79	9668	10312	1769	1733	18.30	16.81
Tirunivelly	9872	10910	5474	5715	55.45	52.38	10597	11535	2140	2090	20.19	18.11
Nilgiris	919	1129	584	669	63.55	59.26	774	968	262	259	33.85	26.76
Malabar	17161	19014	8536	9041	49.74	47.55	18178	20280	4000	4052	22.00	19.98
S. Kanara	6640	7359	3460	3283	52.11	44.61	7083	7876	1894	2052	26.74	26.05
total	218688	245574	121603	128034	55.61	52.14	223278	247849	47803	51065	21.41	20.60

LABOUR FORCE MEASUREMENT FROM INDIAN CENSUS DATA

TABLE 11.4. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941 Y-SAMPLE ESTIMATES (BOMBAY)

district	male				female			
	population		principal earners		population		principal earners	
	1931	1941	1931	1941	1931	1941	1931	1941
				percentage of earners				percentage of earners
Bombay Municipality	7474	9425	5076	67.10	4140	5474	525	12.64
Ahmedabad	4975	7501	4366	44.87	4265	6221	388	9.09
Kaira	3951	4827	2715	45.07	3465	4323	275	7.93
Broach Panch Mahal	4115	4782	2440	46.28	3772	4463	406	10.77
Surat	3483	4423	2249	45.70	3455	4387	386	11.12
Thana	4305	4788	2351	54.61	4061	4539	1102	27.13
Bombay Suburban	1032	1433	610	59.11	763	1078	140	18.29
Ahmednagar	5012	5801	3141	52.95	4870	5621	955	19.61
East Khandesh	6127	6738	3053	49.83	5933	6539	1277	21.51
West Khandesh	3918	4633	1940	49.52	3800	4489	656	17.27
Nasik	5089	5698	3146	51.05	4912	5441	960	19.54
Poona	6010	7001	3003	49.96	5688	6593	949	16.68
Satara	5923	6577	2787	47.05	5874	6696	841	14.32
Sholapur	4535	5299	2422	53.40	4240	4917	754	17.78
Belgaon	5524	6302	2495	45.17	5243	5953	447	8.53
Bijapore	4406	4972	2079	47.18	4286	4788	555	12.95
Dharwar	5656	6165	2697	47.68	5370	5845	653	12.16
Kanara	2141	2245	856	39.99	2038	2167	205	10.06
Kolaba	3150	3316	1730	54.91	3137	3373	872	27.81
Ratnagiri	6093	6318	2941	48.27	6932	7416	1720	24.81
Rajputana States	—	2989	1617	54.10	—	2820	—	—
Baroda	10743	14729	7116	66.24	10056	13821	2474	24.60
total	103662	125962	53914	52.01	96300	116964	16540	17.17
			70098	55.65			26990	23.08

The total does not give the Bombay total due to non-availability of Y-slips of Deccan State Agency, Gujrat State Agency, Western India State Agency and Abu State of Rajputana.

TABLE 11.5. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941 Y-SAMPLE ESTIMATES (MADHYA PRADESH)

district	male						female					
	population		principal earners		percentage of earners		population		principal earners		percentage of earners	
	1931	1941	1931	1941	1931	1941	1931	1941	1931	1941	1931	1941
Sagar	4352	4744	2466	2639	56.66	55.63	4150	4647	951	1058	22.91	22.77
Bastar	3304	3906	1465	2012	44.33	51.51	3304	3927	428	1180	12.96	30.05
Surguja	3137	3588	1619	1899	51.61	52.93	3025	3411	307	898	10.16	26.33
Mandla	2214	2512	1066	1212	48.17	48.25	2244	2534	280	607	12.49	23.95
Raigarh	3696	4228	1852	2598	50.12	61.45	3769	4271	277	984	7.35	23.04
Jubbulpur	3916	4695	2267	2604	57.88	55.46	3822	4411	912	1144	23.85	25.94
Hoshangabad	4175	4253	2576	2400	56.90	56.43	4061	4127	977	966	24.06	23.41
Nimar	2420	2639	1320	1443	54.54	54.68	2249	2494	416	842	18.51	33.76
Betul	2011	2188	1241	1207	61.72	55.16	2051	2195	488	741	23.77	33.76
Chhindwara	4775	5142	2824	2920	59.15	56.79	4895	5198	1236	1739	25.25	33.46
Wardha	2614	2626	1647	1437	63.02	54.72	2549	2867	1183	748	46.43	26.09
Nagpur	4812	5421	2979	3077	61.91	56.76	4588	5179	1804	1788	39.32	34.52
Chanda	3812	4389	2255	2481	59.17	56.53	3785	4344	1269	1813	33.52	41.74
Bhandara	4088	4792	2515	2830	61.52	59.06	4157	4840	1749	2487	42.08	51.38
Balaghat	2769	3139	1649	1629	59.56	51.90	2847	3205	487	732	17.11	22.84
Raipur	7400	7373	4303	3857	58.15	52.31	7876	7794	2166	2012	27.50	25.81
Bilaspur	6839	7610	3832	4616	56.03	60.66	7163	7885	2044	3073	28.53	38.97
Drug	5539	6839	2728	3458	49.25	50.56	6038	7316	1258	2843	20.83	38.86
Amraoti	4856	5079	2864	3009	58.97	59.24	4560	4806	1513	1487	33.20	30.94
Akola	4489	4639	2702	2748	60.19	59.24	4275	4438	1452	1550	33.98	34.93
Beldana	3890	4163	2441	1905	62.75	45.76	3776	4046	1231	1267	32.59	31.31
Yeotmal	4361	4487	2635	2669	60.41	59.48	4212	4390	1695	2022	40.24	46.06
total	89469	98452	51246	54650	57.28	55.51	89396	98325	24123	31981	26.98	32.53

(Figures. in 00)

TABLE 11.6. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941 Y-SAMPLE ESTIMATES (UTTAR PRADESH AND PUNJAB)

district	male						female					
	population		principal earners		percentage of earners		population		principal earners		percentage of earners	
	1931	1941	1931	1941	1931	1941	1931	1941	1931	1941	1931	1941
	UTTAR PRADESH											
Pilibhit	2408	2636	1612	1538	66.94	58.30	2080	2270	218	169	10.48	7.44
Saharanpur	5738	6553	3635	3939	63.35	60.11	4701	5243	649	630	13.81	12.02
Muzaffarnagar	4893	5790	2883	3154	58.92	54.47	4054	4778	501	436	12.36	9.13
Meerut	8713	10261	4941	5857	56.71	57.08	7307	8705	1070	840	14.64	9.65
Bulandshahr	6040	6899	3675	3770	60.84	54.65	5329	6274	637	416	11.95	6.63
Aligarh	6360	7449	3891	4231	61.18	56.80	5357	6278	539	539	10.06	8.59
Muntra	3643	4396	2236	2532	61.38	57.60	3038	3674	322	315	10.60	8.57
Agra	5730	6980	3524	3965	61.50	56.81	4754	5918	331	397	6.96	6.71
Mainpur	4126	4742	2610	2624	63.26	55.34	3370	3984	281	297	8.34	7.45
Etah	4664	5332	3018	2948	64.71	55.29	3941	4516	284	233	7.21	5.16
Bareilly	5799	6372	3612	3809	62.44	59.78	4925	5390	383	319	7.78	5.92
Bijnor	4437	4817	2753	2248	62.05	46.67	3918	4286	454	294	11.59	6.86
Budaun	5465	6266	3792	3088	69.39	49.28	4637	5357	494	270	10.65	5.04
Moradabad	6878	7883	4233	4246	61.54	53.86	5963	6849	439	365	7.36	8.25
Shahjahanpur	4931	5397	3132	3121	63.52	57.83	4120	4437	340	368	8.25	8.25
Dehra Dun	1376	1619	845	1113	61.41	68.75	927	1043	107	107	11.54	10.26
Farrukhabad	4801	5113	2973	2964	61.91	57.97	3972	4441	320	455	8.06	10.25
Etawah	4131	4818	2626	2409	63.57	50.00	3329	4015	450	205	13.52	5.11
Kanpur	6698	8757	4081	4430	60.93	50.59	5424	6806	805	754	14.84	11.08
Fatehpur	3614	4158	2233	1829	61.79	43.99	3274	3912	807	403	24.65	10.30
Allahabad	7674	9281	4724	4235	61.56	45.63	7245	8848	2087	1130	28.81	12.77
Jhansi	3576	3997	2250	2240	62.92	56.04	3329	3734	880	803	26.43	21.51
Jalwa	2233	2533	1420	1645	63.59	64.94	2027	2291	713	271	35.18	11.82
Hinarpur	2570	2937	1673	1639	65.10	55.81	2457	2818	809	679	32.93	24.10
Banda	3229	3728	1860	2015	57.60	54.05	3028	3498	1019	912	33.65	26.07
Banaras	5250	6311	3070	3284	58.48	52.04	4913	5876	1091	1294	22.21	22.02
Mirzapur	3945	4496	2379	2373	60.30	52.78	3939	4504	1186	1017	30.11	22.58
Jaunpur	6822	8222	3759	3566	61.33	52.27	6232	7052	1766	804	28.34	11.40
Gazipur	4229	4998	2499	2377	59.09	47.56	4021	4856	853	661	21.21	13.61
Ballia	4691	5307	2894	2978	61.69	56.11	4440	5232	1151	1209	25.92	23.11
Gorakhpur	18303	20076	11926	9688	65.16	48.26	17337	19560	4890	2790	28.15	14.26
Basti	10675	11253	7286	5951	68.25	52.88	10105	10603	2020	1766	19.99	16.16
Azamgarh	7980	9167	5096	4881	63.86	53.25	7736	9062	1739	1326	22.48	14.63
Nainital	1623	1712	1050	1081	64.70	63.14	1149	1206	111	113	9.66	9.70
Almora	2920	3420	2032	1698	69.59	49.65	2913	3453	114	329	3.97	9.53

TABLE 11.6. COMPARATIVE FIGURES OF THE PERCENTAGES OF PRINCIPAL EARNERS BETWEEN 1931 CENSUS AND 1941 Y-SAMPLE
(Figures in 00)
ESTIMATES (UTTAR PRADESH AND PUNJAB)—(continued)

district	male					female				
	population		principal earners		percentage of earners	population		principal earners		percentage of earners
	1931	1941	1931	1941		1931	1941	1931	1941	
	UTTAR PRADESH—contd.									
Garhwal	2580	2900	1549	1613	60.04	2759	3122	119	431	4.31
Lucknow	4329	5221	2591	3362	59.85	3546	4277	497	788	14.02
Unao	4528	5062	2864	2757	63.25	4029	4534	695	447	17.25
Rai Bareilly	4937	5392	3100	3114	62.79	4804	5256	1162	1183	24.19
Sitapur	6210	6892	4202	3736	67.56	5451	6043	870	473	15.96
Hardoi	6084	6658	4036	3990	66.34	5192	5735	745	255	14.35
Kheri	5047	5479	3469	3025	68.73	4398	4762	711	482	16.17
Fyzabad	6101	6620	3938	3659	64.55	5947	6574	1343	1601	22.58
Gonda	8065	8843	4715	3936	58.46	7695	8353	1477	681	19.19
Bahraich	5927	6495	3757	3976	63.39	5436	5911	834	607	15.34
Sultanpur	5193	5378	3291	2809	63.37	5320	5626	1093	1330	20.55
Pratapgarh	4420	5297	2759	2575	62.42	4642	5113	1916	1318	41.28
Bara Banki	5548	6093	3537	3070	63.75	5090	5532	1033	578	20.29
Rampur	2506	2584	1594	1671	63.61	2146	2186	166	116	7.74
Tehrigarhwal	1733	2011	1160	933	66.94	1763	1963	88	135	4.99
total	258680	293201	162785	157692	62.93	233545	265756	42609	33541	18.55
	PUNJAB									
Hissar	4980	5514	2295	3164	46.08	4248	4832	136	1252	3.20
Rohtak	4474	5154	2098	2848	46.89	3874	4717	150	2148	3.87
Gurgaon	3985	4534	1900	2459	47.68	3417	3880	181	984	5.30
Karnal	4699	5429	2074	3177	44.14	3827	4517	225	656	5.88
Ambala	4164	4715	2223	2929	53.38	3265	3763	198	663	6.06
Simla	235	244	168	180	71.49	133	141	11	78	8.37
Kangra	4153	4703	2345	2848	56.49	3860	4291	297	1768	7.69
Hoshiarpur	5519	6213	2917	3718	52.85	4803	5490	170	1330	3.54
Jullundar	5127	6062	2481	3566	48.41	4311	5214	169	1279	3.92
Ludhiana	3756	4469	2097	2285	55.83	2959	3717	114	789	3.84
Ferozepur	6363	7814	3125	4588	49.11	5205	6417	155	1457	2.98
*Amritsar	7102	8879	3609	4947	50.82	5711	7332	237	1131	4.15
*Gurdaspur	4007	4691	2042	2667	50.96	3250	3929	102	670	3.14
total	58564	68421	29374	39376	50.16	48873	58340	2145	14205	4.39
					57.55					24.35

The Uttar Pradesh total does not include Banaras State.

* Indicates districts affected with the formation of Pakistan

LABOUR FORCE MEASUREMENT FROM INDIAN CENSUS DATA

TABLE 12. DISTRIBUTION OF PERSONS ACCORDING TO DEPENDENCY 1941

(Figures in 00)

state	percentage of earners													
	population		independent earners		partly dependent earners		total dependents		independent earners		partly dependent		total dependents	
	male	female	male	female	male	female	male	female	male	female	male	female	male	female
West Bengal	118343	100030	62603	9064	3037	1900	52703	89066	52.90	9.06	2.57	1.90	44.53	89.04
Bombay	150800	141011	72399	16259	11520	16281	66881	108471	48.01	11.53	7.64	11.55	44.35	76.92
Bihar	183255	182206	88994	24072	10865	15031	83396	143103	48.55	13.21	5.93	8.25	45.51	78.54
Orissa	67065	70615	37694	7033	3516	11023	25855	52559	56.20	9.96	5.24	15.61	38.56	74.43
Assam (with Tripura)	45911	41216	19753	4196	3224	5872	22934	31148	43.02	10.18	7.02	14.25	49.96	75.57
Punjab	68531	58441	34165	7324	5275	6918	29091	44199	49.85	12.53	7.70	11.84	42.45	75.63
Madhya Pradesh	98453	98025	47927	14458	6772	17529	43754	66038	48.68	14.75	6.88	17.88	44.44	67.37
Uttar Pradesh	295425	268041	146841	21030	12053	12793	136531	234218	49.71	7.85	4.08	4.77	46.21	87.38
Madras	245574	247849	117410	32919	10631	18143	117533	196787	47.81	13.28	4.33	7.32	47.86	79.40
*Delhi	5352	3827	3176	116	93	125	2083	3586	59.34	3.03	1.74	3.27	38.92	93.70
*Rajputana	74767	67772	35784	6619	1012	1350	37971	59803	47.86	9.77	1.35	1.99	50.79	88.24
Mysore	37633	35658	15809	2156	4131	1558	17693	31944	42.01	6.05	10.98	4.37	47.01	89.58
Hyderabad	83468	79918	35039	13039	11123	10894	37306	55985	41.98	16.32	13.33	13.63	44.69	70.05
Kashmir	21299	18917	10604	387	1367	1824	9328	16706	49.79	2.05	6.41	9.64	43.80	88.31
other states	143817	135231	71298	12651	6875	13811	65644	108769	49.58	9.36	4.78	10.21	45.64	80.43
all India	1639693	1548757	799496	171323	91494	135052	748703	1242382	48.76	11.06	5.58	8.72	45.66	80.22

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TABLE 13. DISTRIBUTION OF PRINCIPAL EARNERS BY SEX AND LIVELIHOOD ORDERS*
IN 1941 CENSUS

(Figures in 000)

order no.	male			female			total principal earners
	principal earners			principal earners			
	independ- ent earners	partly depend- ent	total	independ- ent earners	partly depend- ent	total	
1	51183.9	5163.8	56347.7	9729.6	7705.5	17435.1	73782.8
(a)	48972.5	4786.9	53759.4	9158.9	7316.3	16475.2	70234.6
(b)	951.6	108.3	1059.9	348.2	318.3	666.5	1726.4
(c)	145.2	10.9	156.1	25.7	17.2	42.9	199.0
(d)	1092.2	229.1	1321.3	190.6	52.1	242.7	1564.0
(e)	22.4	28.6	51.0	6.2	1.6	7.8	58.8
2	428.0	37.7	465.7	89.6	68.3	157.9	623.6
3	76.9	4.0	80.9	9.4	4.1	13.5	94.4
4	438.9	34.1	473.0	53.0	24.0	77.0	550.0
5	2424.5	188.6	2613.1	403.8	446.3	850.1	3463.2
6	610.3	43.4	653.7	39.6	30.5	70.1	723.8
7	956.5	80.6	1037.1	118.5	85.8	204.3	1241.4
8	545.1	38.3	583.4	26.4	17.8	44.2	627.6
9	533.5	39.0	572.5	80.5	54.3	134.8	707.3
10	128.8	9.9	138.7	12.6	5.0	17.6	156.3
11	671.8	72.0	743.8	415.6	281.3	696.9	1449.7
12	1561.9	125.0	1686.9	224.8	150.0	374.8	2061.7
13	13.5	0.7	14.2	0.4	—	0.4	14.6
14	715.4	51.2	766.6	87.5	49.8	137.3	903.9
15	41.9	3.7	45.6	0.8	0.8	1.6	47.2
16	137.1	6.7	143.8	1.5	0.5	2.0	145.8
17	742.0	37.7	779.7	123.6	48.7	172.3	952.0
18	1.5	0.2	1.7	0.1	0.1	0.2	1.9
19	210.2	15.2	225.4	3.2	1.0	4.2	229.6
20	666.5	52.7	719.2	48.2	27.3	75.5	794.7
21	564.9	48.2	613.1	26.6	14.9	41.5	654.6
22	96.0	3.9	99.9	1.9	0.4	2.3	102.2
23	237.9	14.3	252.2	22.0	2.5	24.5	276.7
24	109.3	6.0	115.3	1.0	1.4	2.4	117.7
25	352.3	28.1	380.4	19.1	13.5	32.6	413.0
26	90.1	6.8	96.9	5.5	2.2	7.7	104.6
27	63.7	4.6	68.3	10.5	15.7	26.2	94.5
28	33.5	1.7	35.2	1.6	1.3	2.9	38.1
29	26.1	2.1	28.2	14.2	24.1	38.3	66.5
30	58.4	3.5	61.9	2.5	2.1	4.6	66.5
31	425.4	25.8	451.2	154.4	32.2	186.6	637.8
32	2087.7	144.5	2232.2	707.4	398.6	1106.0	3338.2
33	75.4	3.5	78.9	4.5	1.8	6.3	85.2
34	64.3	4.1	68.4	2.5	1.0	3.5	71.9
35	13.1	0.5	13.6	2.9	1.2	4.1	17.7
36	113.9	6.5	120.4	11.6	3.6	15.2	135.6
36	125.5	13.9	139.4	58.0	64.0	122.0	261.4
38	185.5	11.9	197.4	23.6	10.2	33.8	231.2
39	799.9	71.3	871.2	96.5	38.4	134.9	1006.1
40	221.6	7.3	228.9	1.0	0.5	1.5	230.4
41	2.6	0.5	3.1	—	—	—	3.1
42	1.2	—	1.2	—	—	—	1.2
43	454.6	36.4	491.0	6.0	2.6	8.6	499.6
44	955.0	38.4	993.4	31.1	9.2	40.3	1033.7
45	477.8	49.3	527.1	51.9	12.4	64.3	591.4
46	117.7	4.4	122.1	1.0	0.5	1.5	123.6
47	197.2	10.7	207.9	58.7	19.3	78.0	285.9
48	485.1	33.3	518.4	63.6	8.0	71.6	590.0
49	252.6	21.3	273.9	28.6	6.4	35.0	308.9
50	236.1	11.8	247.9	63.7	8.0	71.7	319.6
51	1095.2	112.7	1207.9	1191.5	871.6	2063.1	3271.0
52	7252.7	2363.3	9616.0	2748.6	2891.5	5640.1	15256.1
53	33.4	10.4	43.8	3.2	1.1	4.3	48.1
54	538.2	41.0	579.2	245.2	41.8	287.0	866.2
55	17.5	2.9	20.4	3.2	2.1	5.3	25.7
total	79949.6	9149.4	89099.0	17132.3	13505.2	30637.5	119736.5

* For names of orders see page 250.

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THE BALANCE OF PAYMENTS ARGUMENT FOR PRIORITY TO HEAVY INDUSTRY

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SUMMARY. This paper seeks to re-examine the foreign exchange saving or economic independence argument—one of three major arguments—used by Professor P. C. Mahalanobis in support of his emphasis on heavy machine-building industries in his strategy of planning in underdeveloped economies. It shows that the scope for saving in foreign exchange is much more limited than that envisaged by Professor Mahalanobis;—to take his example, during the first five years of foodgrains import replacement by putting up fertilizer plants, the net saving of foreign exchange is not Rs. 440 crore but only Rs. 84 crore. However, a general confirmation of Professor Mahalanobis's argument is found: over the first ten years, foreign exchange costs are little more than half of those of importing all additional foodgrains, and the relative saving would increase in subsequent years. Certain organisational aspects of the various policy alternatives are discussed and finally the validity of Professor Mahalanobis's model for countries with different resource endowments is questioned. It is concluded that the general validity of Professor Mahalanobis's argument remains formally unimpaired while it may be practically invalid for those countries which have a sufficiently unfavourable or inappropriate resource endowment.

INTRODUCTION

1. A cardinal principle of Indian economic planning in recent years has been the emphasis on investment in heavy, capital-intensive industries. One of the chief protagonists for this strategy of planning, Professor P. C. Mahalanobis, has advanced three arguments in its favour: First, investment in capital-intensive industries will, in the long run, yield a higher rate of growth of income (and employment) than investment in less capital-intensive industries.¹ Secondly, "success in establishing the basic industries would give Government increasing control over the national economy."² Thirdly, the establishment of basic industries would secure "economic independence;" once the heavy capital goods industries are established, "everything else can be gradually manufactured in India mostly out of domestic resources."³

2.1. The object of this note is to re-examine the third argument.⁴ It will be convenient to quote in full the lucid exposition of the argument in the form of a numerical example given by Professor Mahalanobis in his Presidential Address to the

¹P. C. Mahalanobis (1953): Some observations on the process of growth of national income, *Sankhyā*, 12, 307-312.

²P. C. Mahalanobis (1958): Science and National Planning, Anniversary Address, 5 January, National Institute of Sciences of India, para 43. Reprinted in *Sankhyā*, 20, 69-106

³*Ibid.*, para 39.

⁴I am indebted to Mr. V. Prakash and Mr. A. Biswas for helpful discussion of an earlier draft of this note; neither has any responsibility for remaining errors.

National Institute of Sciences of India (January 1958) on "Science and National Planning."

2.2. "I shall give a numerical example. Consider the question of foodgrains about which India is in a precarious position. From 1948 to 1953 we imported 19.3 million tons of cereals at a cost of about Rs. 867 crore in 6 years, that is, at the average rate of about 3.2 million tons at a cost of Rs. 145 crore per year. The average price paid was about Rs. 450 per ton.

2.3. "The population of India is growing at the rate of, possibly, 5 million persons per year. It takes roughly one ton of cereals to feed 7 persons. At this rate, an additional supply of 700,000 tons of foodgrains *every year* would be required to keep pace with the growth of population. If we decide to purchase this quantity from abroad, we would require *every year* an additional Rs. 30 crore of foreign exchange which would amount to Rs. 450 crore in the course of one five-year plan (and this, also, only at the present rate of growth of population).

2.4. "Consider the alternative method of using imported fertilizers to increase the production of cereals. One ton of ammonium sulphate, at a cost of about Rs. 250 per ton, should normally give an additional yield of 2 or 2.2 tons of foodgrains. To give 700,000 tons more of foodgrains, the quantity of ammonium sulphate required would be 350,000 of which the price would be Rs. 8.75 crore or say Rs. 9 crore. This would be the additional amount required *every year*; in the course of 5 years the total amount required would be Rs. 135 crore.

2.5. "A still better way would be to instal *every year* a new fertilizer factory to produce 350,000 tons of ammonium sulphate (roughly like the factory at Sindri). The fixed investment would be about Rs. 25 crore of which the foreign exchange component would be only Rs. 10 crore. After the period of construction is over, each such factory would supply enough fertilizer to take care of the increase of population of one year. The total expenditure in five years would be Rs. 125 crore, with, however, a total foreign exchange component of only Rs. 50 crore.

2.6. "It is possible to go one step further, and establish immediately a heavy machine-building factory in India, and, when this plant is constructed, to manufacture in India the machinery required, to set up a fertilizer factory. Of course, it is neither possible nor necessary to set up a machine-building plant exclusively for the manufacture of machinery for fertilizer factories; the work can be done in big plants which would manufacture machinery for other industries as well. It is, however, possible to make rough calculations of cost because, in the case of heavy machine-building plants, the value of output is roughly equal to the value of the fixed investment. To produce machinery worth Rs. 10 crore (the value of imports required to set up a

Sindri-type plant) would thus call for an investment of about Rs. 10 or, say, 15 crore with a foreign exchange component of possibly Rs. 8 or 10 crore. This would be the (apportioned) cost in the first instance. The actual cost of setting up a fertilizer factory would be Rs. 25 crore per year or Rs. 125 crore in five years but this would not involve any expenditure of foreign exchange.

2.7. "To sum up, in order to feed the fresh additions to the population at the rate of 5 million persons per year, it would be necessary to provide an additional quantity of 700,000 tons of foodgrains *every year* which would require Rs. 450 crore of foreign exchange over a period of five years. The cost can be reduced to Rs. 135 crore of foreign exchange in a 5-year period if an additional quantity of 350,000 tons of ammonium sulphate is ordered from abroad *every year*, at least two years in advance of the crop season. The cost can be further reduced to Rs. 125 crore (out of which the foreign exchange component would be Rs. 50 crore) over a five-year period if a new fertilizer factory of 350,000 ton capacity is started *every year*; this would call for decision 4 or 5 years ahead of the crop season concerned. The apportioned cost of a heavy machine-building factory which would manufacture machinery in India to install *every year* a new fertilizer factory of 350,000 ton capacity would be, however, so small as Rs. 12 or 15 crore with a foreign exchange component of perhaps Rs. 8 or 10 crore. Such a decision would have to be made only once but 8 or 10 years in advance of the season in which the fertilizer would be used.

2.8. "The above account is, no doubt, over-simplified but it brings out clearly one important point. In India it is of the greatest importance to take a long view of planning. Additional requirement of foodgrains to cope with the growth of population can be met with an (apportioned) investment of only Rs. 15 or 20 crore and of foreign exchange of Rs. 8 or 10 years in advance of the year in which the food would be consumed. If the decision is made 4 or 5 years in advance, the cost would increase to Rs. 125 crore with a foreign exchange component of Rs. 50 crore. If the decision is made a couple of years ahead, the cost would increase to Rs. 135 crore in foreign exchange to import fertilizers; and if the decision to import foodgrains is made only from year to year the cost would go up to Rs. 450 crore in foreign exchange. *Wise utilization of Rs. 10 crore of foreign exchange once for all can lead, in time, to a saving of Rs. 450 crore of foreign exchange in imports of foodgrains over a period of 5 years.*"⁵

3. I hope to show that this argument, while formally of general validity and probably valid for India even for a relevant planning period, represents a dangerous over-simplification. Its too ready acceptance by economists and politicians

⁵ P. C. Mahalanobis (1958): Science and National Planning, Anniversary Address, 5 January, National Institute of Sciences of India. Reprinted in *Sankhyā*, 20, 69-106, para 47-53.

may not be unconnected with the complacency about the foreign exchange aspects of national economic planning which must bear some responsibility for the balance of payments difficulties of the Second Plan period. More specifically, I shall argue that the net gain to the balance of payments to be obtained from the policy of priority to heavy industry is much less than Professor Mahalanobis's exposition would lead us to suppose. When some of the more important qualifications are brought into the open, the optimum policy for India, for balance of payments purposes, might well prove to be, not perhaps a reversal of priorities, but at least a slower and more cautious advance in the chosen direction.

DIRECT FOREIGN EXCHANGE REQUIREMENTS

4.1. We may begin by spelling out the implications for the balance of payments of the point emphasised by Professor Mahalanobis that his approach means taking "a long view of planning." Since, in his example, it will be 8-10 years before a decision to embark on his policy will yield increased domestic food production, some foreign exchange is clearly needed to meet the food requirements of the growing population during this period. It is easy to deduce the amount from Professor Mahalanobis's model. (Following Professor Mahalanobis we assume for the purpose of the model that no additional food is needed for India's present population).

4.2. During the 8-10 year period needed for the successive production of engineering works, fertilizer factories, fertilizer and the first increase in food output, the needs of the growing population for food can be met in three different ways: (a) All the extra food can be imported throughout the period; (b) imported fertilizer can be used, as soon as practicable, to produce the extra food at home, until home-produced fertilizer made in home-produced fertilizer factories becomes available; (c) fertilizer factories can be built with imported machinery to produce fertilizer, as soon as practicable, for domestic production of the extra food. Let us assume that course (b) is followed. Let us also assume that the engineering works take 4 years to build (i.e. begin to produce machinery for the fertilizer factories at the beginning of year V), that engineering capacity for the equipment of three new fertilizer factories a year is created, and that investment in the fertilizer factories has a gestation period of 2 years (so that the first home-produced fertilizer from 3 factories becomes available at the beginning of year VII).

4.3. On these assumptions, since fertilizer must be imported "at least two years in advance of the crop season," foodgrains worth Rs. 30 and 60 crore respectively will have to be imported in years I and II. In addition, fertilizer will have to be imported in every year from I to IX, at an increasing rate of Rs. 9 crore for each year's population increase up to year VI and at a diminishing rate over the next 3 years as more and more domestic fertilizer factories go into production. (Since the first year in which the application of imported fertilizer yields additional domestic food output is year III, fertilizer imports in year I must begin with Rs. 27 crore). Finally,

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there is the import of machine tools for the engineering works; at the assumed rate of Rs. 10 crore worth of imported machine tools required to establish engineering capacity for 1 fertilizer factory per year, import expenditure of Rs. 30 crore will be needed in year I.

4.4. The direct foreign exchange requirements during the first 10 years, therefore, are as follows :

TABLE 1. DIRECT FOREIGN EXCHANGE REQUIREMENTS
(Rs. crore)

year	foodgrains	fertilizer	machinery	total
(1)	(2)	(3)	(4)	(5)
I	30	27	30	87
II	60	36	—	96
III	—	45	—	45
IV	—	54	—	54
V	—	63	—	63
VI	—	72	—	72
VII	—	54	—	54
VIII	—	36	—	36
IX	—	18	—	18
X	—	—	—	—

4.5. These direct foreign exchange requirements alone represent a substantial offset to the apparent saving of foreign exchange during the first ten years. To them must be added indirect foreign exchange requirements on at least three counts.

INDIRECT FOREIGN EXCHANGE REQUIREMENTS

5.1. Professor Mahalanobis's model assumes that, after four years, the domestic engineering industry will turn out machinery for the new fertilizer factories worth Rs. 10 crore per factory. Even if we can assume that India already possesses a steel industry, so that most of the raw materials required by the engineering works are home-produced, it is unreasonable to expect *all* the required raw materials needed for the construction of the fertilizer factories to be available from purely domestic sources. Let us assume that the important content of each fertilizer factory represents 10% of the fixed investment of Rs. 25 crore. Since 3 factories will have to be started in each of the 4 years V–VIII and 1 in each subsequent year, and since each factory takes 2 years to build, the raw material imports required for their construction can be put at Rs. 3.75 crore in year V, Rs. 7.5 crore for each of the three years V–VIII, Rs. 5 crore in year IX and Rs. 2.5 crore for 1 factory in each subsequent year. By the same reasoning, we may assume that the fertilizer produced in the domestic

factories will have a (direct and indirect) raw material import content of (say) 20%, i.e. rising from Rs. 5.4 crore (20% of 27) in year VII to Rs. 21.6 crore (20% of 108) in year X.

5.2. Strictly speaking, we ought to allow further for an increase in demand for imports (or exportables) out of the additional income earned by domestic factors in the production of the fertilizer factories and fertilizer. We can neglect this by heroically assuming either that these factors would in any case be employed or, if not, that measures can be taken to prevent any rise in imports (or fall in exports) on this score.

5.3. Secondly, we must allow for the fact that the domestic resources used in the construction of the engineering works (or that portion of it needed for the production of machinery for fertilizer factories), in the construction of the fertilizer factories (including the use of the engineering works to produce machinery for this purpose), and in the production of fertilizer, *had they not been used for these purposes* (e.g. if the policy of importing all additional foodgrains had been followed), could have been employed in other forms of import replacing or export production; in other words, the use of these domestic resources involves some opportunity cost in terms of foreign exchange. (We can neglect the additional labour used in agriculture by assuming its opportunity cost to be zero). If we, arbitrarily but conservatively, assess these opportunity costs at *one-half* the value of output of these domestic resources (and neglecting the domestic resources used in the construction of the engineering works which Professor Mahalanobis puts at the low figure of Rs. 5-7 crore per unit), we obtain opportunity cost of Rs. $\frac{1}{2}(25-2.5) = 11.25$ crore for the domestic resources used in the construction of each fertilizer factory and Rs. $\frac{1}{2}(0.8 \times 9) = 3.6$ crore for each Rs. 9 crore worth of fertilizer.

5.4. Since in order to produce machinery for 3 fertilizer factories a year in years V-VIII, we have created more capacity in the engineering industry than is subsequently needed for this purpose, we should perhaps make some allowance for the foreign exchange which can be saved or earned with this excess capacity from year IX onwards. Applying the same ratio of $\frac{1}{2}$ to the import content of engineering capacity for 2 fertilizer factories a year, we get an offset to the fertilizer factory opportunity cost of Rs. 10 crore in each of the years IX and X.

5.5. It might be suggested that we must also allow for the fact that domestic production, in place of import, of the additional foodgrains will make it necessary to provide farmers with some incentive to do the extra work, either by allowing them to retain part of the increase in food output (thus necessitating a higher rate of growth of food production) or by providing them with additional manufactured consumer goods or services (involving some raw material or opportunity cost in terms of foreign exchange). This factor, however, can be neglected if we can assume that the rural sector itself is responsible for at least a proportionate share (say 70%) of the population growth whose food requirements need to be met. If we assume that

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cultivators are given fertilizer by Government in exchange for an equivalent portion of the extra produce, then (using Professor Mahalanobis's figures) crops worth Rs. 250 (i.e. the cost of 1 ton of fertilizer) would represent approximately $\frac{1}{3}$ of the increase in crop yield ($2 \times$ Rs. 400) which could be expected; that is to say, just about the proportion required for the increase in the urban population. In effect, the rural sector would be enabled to produce the additional food needed by the increase in its own population and would supply the extra food needed by the additional urban population in exchange for fertilizer. (This, of course, over-simplifies the problem. In particular, as the proportion of the population in agriculture falls, the problem of extracting the extra food output from the farms becomes more serious).

5.6. On the other hand, thirdly, some allowance ought to be made for additional indirect foreign exchange requirements arising from fixed investment in transport and distribution facilities which will be essential if food requirements are to be met by domestic food production through the application of home-produced fertilizer instead of by imports. Roads, trucks and warehouses are the most obvious examples that come to mind. But it would be pointless to try to guess at the volume of investment required or at its import content or opportunity cost in terms of foreign exchange.

5.7. The indirect foreign exchange requirements, therefore, add up to the following :

TABLE 2. INDIRECT FOREIGN EXCHANGE REQUIREMENTS
(Rs. crore)

year	raw material imports		opportunity cost		rural investment	total
	factory construction	fertilizer	factory construction	fertilizer		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I	—	—	—	—	..	—
II	—	—	—	—	..	—
III	—	—	—	—	..	—
IV	—	—	—	—	..	—
V	3.75	—	16.875	—	..	20.625
VI	7.5	—	33.75	—	..	41.25
VII	7.5	5.4	33.75	10.8	..	57.45
VIII	7.5	10.8	33.75	21.6	..	73.65
IX	5.0	16.2	12.5	32.4	..	66.1
X	2.5	21.6	1.25	43.2	..	68.55

6.1. We may now bring together the direct and indirect foreign exchange requirements of this policy and compare them with the foreign exchange cost of importing all foodgrains needed by the increase in population.

TABLE 3. TOTAL FOREIGN EXCHANGE REQUIREMENTS
(Rs. crore)

year	policy of importing	policy of maximum self sufficiency		
	all foodgrains	direct	indirect	total
(1)	(2)	(3)	(4)	(5)
I	30	87	—	87
II	60	96	—	96
III	90	45	—	45
IV	120	54	—	54
V	150	63	21	104
I-V	450	345	21	366
VI	180	72	41	113
VII	210	54	57	111
VIII	240	36	74	110
IX	270	18	66	84
X	300	—	69	69
VI-X	1200	180	307	487
I-X	1650	525	328	853

6.2. Table 3 confirms the logic of Professor Mahalanobis's argument: his policy in the long run yields a substantial saving of foreign exchange. Over the first ten years, its foreign exchange costs are little more than half of those of importing all additional foodgrains, and the relative saving would increase in subsequent years (even though the absolute foreign exchange requirements of his policy would also rise slowly). But the picture presented by Table 3 is very different from that which the unwary reader might infer from the italicised last sentence quoted above (2.8). During the first five years, the net saving of foreign exchange is not Rs. 440 crore but only Rs. 84 crore, and *in the first two years of the programme its foreign exchange costs are actually more than twice as high as under the alternative policy.*

6.3. It is a proposition of quite general validity and considerable political importance that the net saving of foreign exchange, allowing for indirect exchange requirements, which can be achieved by import-replacing domestic production, is only a fraction of the direct saving of foreign exchange which impresses manufacturers and politicians. In relation to the strain on the balance of payments imposed by this policy in the first two years, it is important to remember that the whole exercise

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relates to a relatively modest part of the task confronting India : to prevent per capita food consumption from falling with population growth. Any policy of raising per capita current consumption and/or domestic saving for development out of increased income will require a much higher rate of growth of production, including agricultural production. The higher the target set, the greater, as our exercise shows, is the burden imposed on the balance of payments in the early years. It is reasonable to neglect this fact only if we can assume either very large international reserves or a very large potential of external credit or aid.

7.1. The calculations in the preceding paragraphs have already touched on two other features of Professor Mahalanobis's model which involve undue oversimplification. One relates to the organisational aspects of the various policy alternatives, the other to the validity of the model for countries with different resources endowments.

THE DIRECTIONS OF ORGANISATIONAL EFFORT

8.1. Professor Mahalanobis compares a number of alternative routes to the goal of feeding India's growing population. Route A : importing foodgrains; Route B : importing fertilizer; Route C: importing machinery for fertilizer production; Route D: importing machine tools for engineering works. His conclusion in favour of Route D on balance of payments grounds strengthens his general case for a strategy of planning which gives "the highest priority to the basic industries, namely, heavy machine building, heavy electrical equipment, machine tools, fertilizers, steel, cement, etc." It needs a careful reader to notice that Route D requires, incidentally, an immense organisational effort to induce the Indian cultivator to expand agricultural production rapidly through the use of fertilizer (and presumably other technical improvements).

8.2. Professor Mahalanobis, of course, admits this; indeed he refers to the point in a footnote: "Besides this, there will, of course, be current costs of intermediate products used up and wages paid. But when the intermediate products are available within the country, and the output of wage goods industries is sufficient to meet the demand, such costs could be met entirely out of domestic resources. This would, no doubt, call for an expansion of the economy and would require organisational efforts; but similar and even greater organisational efforts would be needed to produce the goods to be exported to meet the larger requirements of foreign exchange in the other cases."⁶ But the emphasis of his paper is all on industrialisation, and on heavy industry in particular. The question suggests itself whether such emphasis is not bound, in some measure, to detract from the organisational effort needed to bring about the postulated increase in food production. If failure in this campaign results in growth of domestic food production lagging behind the targets set out in the model,

⁶ P. C. Mahalanobis (1958) : Science and National Planning, Anniversary Address, National Institute of Sciences of India. Reprinted in *Sankhyā*, 20, para 50, footnote 3.

then, availability of all the requisite fertilizer notwithstanding, the population can only be fed by, after all, importing foodgrains and thus still further diminishing the net balance of advantage in favour of Route D. (Here again, the point made in paragraph 6.3 is relevant that the exercise relates to only one part of the problem confronting India). It is no answer to this to say that expansion of export production would require even greater organisational effort. The trouble is that the effort required *either* for expansion of domestic food production *or* for exports is stupendous, while the task of building up heavy industry *sounds* relatively easy. Yet it is the stupendous effort in one form or the other that is inescapable.

THE RELEVANCE OF RESOURCE ENDOWMENT

9.1. Nothing in Professor Mahalanobis's exposition of his argument suggests that it is any less valid for Pakistan than for India, or for Saudi Arabia than for Pakistan. Yet while Route D proved correct for Soviet Russia with its immense continent-wide natural resources, and may prove successful for sub-continental countries with substantial iron ore and coal (or power) resources like China and India, it seems hard to believe that it is the panacea for every underdeveloped political unit in the world.

9.2. The relevance of a country's resource endowment which is hidden in Professor Mahalanobis's model at once emerged when we brought the indirect foreign exchange requirements into the reckoning, in connection with both raw material imports and opportunity cost. Our assumption that the raw material import content of each fertilizer factory represented only 10% of the cost of construction was premised on the fact that India has, or soon will have, an adequate steel industry based on rich resources of iron ore and coal. Without these resources, the (direct and indirect) import content of a domestically built fertilizer factory would be higher and the net saving of foreign exchange *pro tanto* smaller. Similarly, our arbitrary assumption that the domestic resources employed in the construction and fertilizer industries would save twice as much foreign exchange as they could save (or earn) in any alternative employment was premised on the (tacit) assumption that India's resource endowment (skilled workforce, managerial talent, power, transport and other complementary capital equipment) is relatively favourable to efficient production of fertilizer factories and fertilizer. Again we were able to treat the opportunity cost of rural labour as zero only because of India's vast rural labour surplus. Finally, Professor Mahalanobis's assumption of a marginal capital-output ratio in heavy engineering of as low as 1:1, while perhaps valid for India, does not necessarily hold elsewhere. A higher ratio would require correspondingly higher capital investment (and presumably a correspondingly larger expenditure of foreign exchange) to achieve a given output of fertilizer machinery. In a country less well placed in these respects (or with greater comparative advantages in other export or import-replacing industries) the opportunity cost would have had to be put correspondingly higher.

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9.3. It is true that comparative cost conditions alter in many respects in the course of economic development. In many fields of production, a comparative cost disadvantage may disappear within a few years. But certain basic differences of natural resource endowment (climate, water, cultivable land, minerals, power) and size (which affects the importance of indivisibilities) must be taken as given for quite long planning periods.

9.4. The foregoing, incidentally, implies that in a country with a sufficiently unfavourable or inappropriate resource endowment, the net gain in foreign exchange from using Route D, in place of Route A, may be negative for any period for which it would be reasonable to plan. In other words, although the general validity of Professor Mahalanobis's argument remains formally unimpaired, it may be practically invalid for many countries.⁷

⁷It is interesting to note that Professor Ch. Bettelheim, in his paper on "Planned Economic Growth and Foreign Trade" (ISI Working Paper No. 52, 1 February 1956), reached the same conclusion as Professor Mahalanobis, i.e. that in order to minimise balance of payments difficulties it is desirable to concentrate investment on heavy industries, by an entirely different, indeed almost contradictory, line of reasoning.

Professor Bettelheim's argument can be summarised in three propositions:

(i) Investment in capital-intensive industries, while securing the more rapid rate of growth of income and employment in the long run, involves a slower rate of growth of income and employment in the early years than investment in labour-intensive industries; it will, therefore, give rise to a smaller increase in demand for imported consumer goods and thus put less strain on the balance of payments in the short run (*op. cit.*, para 16.6).

(ii) Investment in capital-intensive industries has the disadvantage that it involves a relatively large expenditure on capital equipment which has a high import content. In order to minimise the strain on the balance of payments arising from high imports of capital equipment, it is desirable to concentrate investment right from the beginning on heavy capital-goods industries (*op. cit.*, para 18).

(ii) In the long run, development with a capital-intensive bias will cause a more rapid growth of national income and employment and thus, *cet. par.*, greater pressure on the balance of payments. But in the long run, also, concentration on capital-intensive industries will ease the balance of payments problem (a) by making available home-produced in place of imported capital goods and (b) by increasing productivity and thus improving the competitive position of the country's industries at home and abroad (*op. cit.*, para 16d).

Only in (iii, a) does Professor Bettelheim's argument overlap with that of Professor Mahalanobis. His main emphasis is on two factors which do not appear at all in Professor Mahalanobis's model: the rise in demand for imported consumer goods which accompanies growth in national income (and especially labour income) and the relative position of domestic industries in international competition. To this extent Professor Bettelheim's argument is less abstract and more realistic. In all other respects, however, it is probably weaker.

As regards (i), it is not by any means certain that the additional pressure on the balance of payments due to the higher import content of investment expenditure will be outweighed by the slower growth of income and demand for imported consumer goods. Moreover, it is probably easier to restrain demand for imports of consumer goods by administrative action than imports of capital equipment without which the development plan cannot proceed. At best, any advantage in this respect of the policy of concentrating on capital-intensive development derives merely from the fact that it is less effective in providing employment to labour. It is a political question how large a growth of unemployment can be tolerated for the sake of easing the strain on the balance of payments.

Proposition (ii) is subject to the same criticism as Professor Mahalanobis's thesis (and indeed more so since it refers to the short run): as we have seen, it is an illusion to believe that concentration on heavy capital-goods industries will reduce balance of payments pressure in *the short run*.

Proposition (iii, b) is a curious argument. It appears to regard a country's relative cost level as a function of the average productivity of labour, regardless of the level of wages or the exchange rate. On the other hand, it is no doubt true, in a very general way, that rapid economic growth is likely *cet. par.*, to improve a country's ability to hold its own in international competition: by greater scope for internal and external economies of scale, greater flexibility of the economy, a higher level of technical skill and know-how, larger resources available for research, and in other ways. Whether these factors would, in themselves, meet the higher import bill presented by a more rapidly rising national income is another question.

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THE NATIONAL SAMPLE SURVEY

NINTH ROUND : MAY—NOVEMBER 1955

NUMBER 40

TABLES WITH NOTES ON CONSUMER EXPENDITURE

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TABLES WITH NOTES ON CONSUMER EXPENDITURE

*This report entitled 'Tables with Notes on Consumer Expenditure'—9th round, May to November 1955—was prepared by the Indian Statistical Institute and is being published in the form in which it was submitted to the Government of India and Government are not responsible for the views expressed in the report.**

CHAPTER ONE

INTRODUCTION

1.1. The present set of tables, presenting estimates of consumer expenditure in rupees per person per 30 days and pattern of consumer expenditure by expenditure class and item breakdowns, has been prepared from information on consumer expenditure collected from about 3700 sample households in the ninth round of the National Sample Survey¹. The field work of this round extended over a period of approximately 6 months—from May to November 1955. The survey covered rural as well as urban areas of the Union of India.

1.2. Sample households, chosen for collection of data, were selected according to procedure of probability sampling after suitable stratification so that valid national estimates together with regional breakdowns could be obtained. From selected sample households data were collected by investigators by the interview method by personal visits to the households. The responsibility for the field work rested with the Directorate of the National Sample Survey in all the states except West Bengal and Bombay City. In West Bengal the collection of data was done by the Indian Statistical Institute while the Directorate and the Institute surveyed 60 each of the 120 blocks of Bombay City. Processing and tabulation of the data were carried out by the Indian Statistical Institute.

* The draft report (No. D. 42) was submitted to the Government of India in December 1959.

¹ The National Sample Survey (NSS) has been conducting multi-purpose sample surveys on socio-economic subjects since 1950 on a national scale in continuing rounds. Estimates of consumer expenditure with respect to other rounds of the NSS are available in NSS Report Nos. 1, 2, 3, 18 and 39.

1.3. An account of the sample design of the survey is given in Chapter Two. Some of the concepts and definitions used in the survey are explained in Chapter Three. The results are presented by a pair of statistically independent and interpenetrating sub-samples in the statistical tables at the end of Chapter Four for each of the population zones and all India, with rural and urban breakdowns. A brief note on the method of estimation is given in Appendix A. Some special tables for All India and North-West India, for comparison with data of seventh and earlier rounds, are given in Appendix B. Facsimile of schedule canvassed is given in Appendix C.

CHAPTER TWO

COVERAGE AND DESIGN OF THE SURVEY

2.1. The whole of India including the State of Jammu and Kashmir but excluding Andaman and Nicobar Islands and Part B Tribal Areas of Assam, was covered by the survey.

2.2. *Sample design—rural* : The rural area of the Indian Union was divided into about 250 strata. Generally a district or a group of adjoining districts within a natural division (1951 census definition) constituted a stratum. Within each stratum four or a multiple of four sample villages were selected with replacement with probability proportional to village population (as per 1951 census). Altogether 1624 sample villages were selected from the whole of India including 80 from Jammu and Kashmir. Within each selected village one household was selected at random for collection of relevant data in properly designed schedule.

2.3. *Sample design—urban* : The whole of the urban area was divided into about 90 strata. Each city with a population of 3,00,000 and above constituted a stratum as also the capital cities of Part A and Part B states except Shillong, capital of Assam¹. Calcutta City, however, was divided into 8 strata. The rest of the urban areas within a natural division (1951 census definition) formed another stratum. Sampling was done in two stages. The first-stage units of sampling in each stratum were "blocks"—urban units constructed on the basis of 1951 census enumeration blocks. Altogether 2108 sample blocks were selected from the whole of India including 108 from Jammu and Kashmir. Within each stratum the towns were first of all arranged broadly on consideration of occupational pattern². (This, of course, did not apply to any stratum formed by one single city or part of a city) Within each town the blocks were arranged according to their geographical nearness. The blocks were made as homogeneous as possible with respect to their population content, sometimes by splitting the original blocks and sometimes by merging two or more adjacent blocks. After such arrangement 4 independent systematic samples of blocks were selected. Within each sample block one household was selected at random for collection of relevant data.

2.4. Table (2.1) shows the allocation of sample villages and blocks to different States and population zones.

¹ The States mentioned in this report refer to the set-up prior to the States Reorganisation in 1956.

² This was done on the basis of the proportion of population of the individual towns in the different means of livelihood classes according to 1951 Census of Population.

TABLE (2.1) : ALLOCATION OF SAMPLE VILLAGES AND BLOCKS
TO STATES AND POPULATION ZONES

states and population zones	number of sample villages	number of sample blocks
(1)	(2)	(3)
1. Uttar Pradesh	280	264
(i) North India	280	264
2. Bihar	192	72
3. Orissa	72	16
4. West Bengal	96	280
5. Assam	48	20
6. Manipur and Tripura	8	4
(ii) East India	416	392
7. Andhradesh	88	80
8. Madras	140	248
9. Mysore	48	76
10. Travancore-Cochin	48	56
11. Coorg	4	4
(iii) South India	328	464
12. Bombay	120	352
13. Saurashtra	12	36
14. Kutch	4	4
(iv) West India	136	392
15. Madhya Pradesh	96	80
16. Madhya Bharat	36	44
17. Hyderabad	80	104
18. Bhopal	4	4
19. Vindhya Pradesh	16	8
(v) Central India	232	240
20. Rajasthan	68	72
21. Punjab	56	72
22. PEPSU	16	20
23. Jammu and Kashmir	80	108
24. Ajmer	4	8
25. Delhi	4	72
26. Himachal Pradesh	4	4
(vi) North-West India	232	356
(vii) all India	1624	2108

2.5. Eight sample villages were uninhabited at the time of survey. Six sample blocks constituting about one-third of one per cent of the total number of sample blocks could not be surveyed. Data of three sample households pertaining to three sample blocks were rejected.

CHAPTER THREE

CONCEPTS AND DEFINITIONS

3.1. Some of the important concepts and definitions adopted for consumer expenditure survey are explained in this chapter.

3.2. The ultimate unit of sampling and accounting was the household. According to the basic concept adopted in the enquiry a household meant a group of persons taking principal meals from a common kitchen and usually living together. Household size was determined by the number of persons living with the household and partaking of the common kitchen for any 16 days or more of the 30 days ending on the day preceding the day of enquiry.

3.3 Institutional population like inmates of jails, asylums, police lines, military establishments, etc. were excluded from the scope of the survey. Boarders living in boarding houses, hotels, etc. were, however, covered by the survey. Data were collected from the sample households by the investigators by personal visits and interrogation. Usually the head of the household supplied the data.

3.4. The reference period adopted for collection of data on consumer expenditure was a period of 30 days ending on the day preceding the day of enquiry. Since the field operations of the round extended from May to November 1955, the estimates, as presented, broadly refer to the period April to October 1955.

3.5. Consumer expenditure comprised only that part of the expenditure of the household which related to domestic consumption of the household. Expenditure on household enterprises was not included. Loans, monetary as well as in kind like grain loans advanced to other households, were also excluded. For collection of data from sample households monetary value of food articles consumed during the reference period was taken to present consumer expenditure on food articles during the period. For non-food articles, in general, monetary value of the articles acquired during the reference period represented consumer expenditure on the articles during the period.

3.6. Total consumption included consumptions out of home-grown stock as well. Such consumptions were evaluated at ex-farm rates of the respective items concerned. Consumptions out of gift and charities as well as of articles acquired through barter exchanges were evaluated at prevailing retail rates of the items concerned.

CHAPTER FOUR

DESCRIPTION OF TABLES

4.1. Tables on consumer expenditure in rupees per person per 30 days and pattern of consumer expenditure by expenditure class and item breakdowns presented at the end of this chapter give estimates for the Indian Union with rural and urban breakdowns. The figures are given to two places of decimal for purposes of arithmetic calculations and do not, in general, suggest accuracy to that degree.

4.2. Separate tables are given for the population zones¹ with rural and urban breakdowns and also for the four big cities—Calcutta, Bombay, Delhi and Madras merged together.

4.3. The estimates are given by two statistically independent interpenetrating sub-samples. The sub-sample estimates provide valid and independent estimates of the character under question as also a broad measure of the uncertainty of the estimates. The combined estimate, an weighted average of the sub-sample estimates, is, however, more precise being based on greater number of observations.

4.4. The estimates are presented by 12 monthly per capita expenditure class of households. The expenditure classes in rupees are (i) 0-8, (ii) 8-11, (iii) 11-13, (iv) 13-15, (v) 15-18, (vi) 18-21, (vii) 21-24, (viii) 24-28, (ix) 28-34, (x) 34-43, (xi) 43-55 and (xii) 55 and above. Monthly per capita expenditure class of each sample household was determined by dividing total consumer expenditure of the sample household during the 30-day reference period by the household size of the sample household.

4.5. The breakdowns of items of consumption presented are twelve, namely (1) foodgrains, (2) milk and milk products, (3) edible oil, (4) meat, egg and fish, (5) sugar, (6) salt, (7) other food items, (8) clothing, (9) fuel and light, (10) rent, (11) taxes and (12) miscellaneous items.

4.6. The component parts of foodgrains are rice, wheat, jowar, bajra, maize, barley, small millets, ragi and their products and cereal substitutes like tapioca, etc. Milk and milk products include liquid milk (cow, buffalo, goat and others), ghee, butter, dahi, ghol, khoa, chana and other milk products. Edible oil includes mustard oil, cocoanut oil, gingelly oil, ground-nut oil, vanaspati, etc. Meat, egg, and fish include all items of meat, fish and eggs. Sugar includes gur (cane and

¹ The six population zones (1951 census definition) and the states (prior to re-organisation) are :

1. North India	: Uttar Pradesh
2. East India	: Bihar, Orissa, West Bengal, Assam, Manipur and Tripura
3. South India	: Andhra, Madras, Mysore, Travancore-Cochin and Coorg
4. West India	: Bombay, Saurashtra and Kutch
5. Central India	: Madhya Pradesh, Mahdya Bharat, Hyderabad, Vindhya Pradesh and Bhopal
6. North-West India	: Rajasthan, PEPSU, Ajmer, Delhi, Punjab, Himachal Pradesh, Bilaspur and Jammu and Kashmir

CONSUMER EXPENDITURE

others), sugar candy and sugar. Salt includes rock salt, sea salt and other salts. Other food includes pulses and products, vegetables, fruits and nuts, species and beverages and refreshments. Clothing includes cotton (mill-made, handloom and Khadi), wool and silk clothing and bedding and upholstery. Fuel and light includes items of fuel and lighting like coal, firewood, kerosene, matches, electricity, candle etc. Rent includes all rents paid for domestic use. Taxes cover only taxes paid for enjoyment of consumer benefits. Miscellaneous items include expenditure on pan, supari, tobacco and products, intoxicants, amusement and sports, education, medicine, toilet, sundry goods, services, conveyance, ceremonials and durable and semi-durable goods like furniture, musical instruments, etc.

4.7. The following procedure is adopted in numbering the tables for convenience of reference. The table number consists of two parts separated by a point. The number on the left of the point signifies the sector, 1 standing for rural sector, 2 for whole of the urban sector and 3 for the four big cities—Bombay, Calcutta, Delhi and Madras taken together. The first digit to the right of the point signifies the type of table, numbers 1–5 giving household and population tables, 6 consumer expenditure in rupees per person per month and 7 pattern of consumer expenditure in the form of item-wise consumer expenditure expressed as percentage of total consumer expenditure. The second digit to the right of the point signifies the area to which the table refers—0 stands for national tables and numbers 1–6 for population zones 1–6 respectively.

4.8. A slightly different system has been adopted for numbering the tables pertaining to the four big cities—Bombay, Calcutta, Delhi and Madras. Table numbers 3.10, 3.20, 3.30, 3.40 and 3.50 give household and population tables for the cities. Table numbers 3.60 and 3.70 give respectively estimates of consumer expenditure and pattern of consumer expenditure by expenditure class and item breakdowns for the cities merged together. Table numbers 3.61 and 3.71 give respectively estimates of consumer expenditure and pattern of consumer expenditure for the cities separately.

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RURAL

TABLE (1.10) : DISTRIBUTION OF SAMPLE VILLAGES AND HOUSEHOLDS ALLOTTED AND SURVEYED BY STATES AND POPULATION ZONES IN RURAL AREAS

states and population zones	number of sample villages						number of sample households					
	allotted			surveyed			allotted			surveyed		
	s.1	s.2	comb.	s.1	s.2	comb.	s.1	s.2	comb.	s.1	s.2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Uttar Pradesh	140	140	280	140	140	280	140	140	280	140	140	280
(i) North India	140	140	280	140	140	280	140	140	280	140	140	280
2. Bihar	96	96	192	96*	96*	192	96	96	192	92	92	184
3. Orissa	36	36	72	36	36	72	36	36	72	36	36	72
4. West Bengal	48	48	96	48	48	96	48	48	96	48	48	96
5. Assam	24	24	48	24	24	48	24	24	48	24	24	48
6. Manipur	2	2	4	2	2	4	2	2	4	2	2	4
7. Tripura	2	2	4	2	2	4	2	2	4	2	2	4
(ii) East India	208	208	416	208	208	416	208	208	416	204	204	408
8. Andhradesh	44	44	88	44	44	88	44	44	88	44	44	88
9. Madras	70	70	140	70	70	140	70	70	140	70	70	140
10. Mysore	24	24	48	24	24	48	24	24	48	24	24	48
11. Travancore-Cochin	24	24	48	24	24	48	24	24	48	24	24	48
12. Coorg	2	2	4	2	2	4	2	2	4	2	2	4
(iii) South India	164	164	328	164	164	328	164	164	328	164	164	328
13. Bombay	60	60	120	60	60	120	60	60	120	60	60	120
14. Sourashtra	6	6	12	6	6	12	6	6	12	6	6	12
15. Kutch	2	2	4	2	2	4	2	2	4	2	2	4
(iv) West India	68	68	136	68	68	136	68	68	136	68	68	136
16. Madhya Pradesh	48	48	96	48	48	96	48	48	96	48	48	96
17. Madhya Bharat	18	18	36	18	18	36	18	18	36	18	18	36
18. Hyderabad	40	40	80	40	40	80	40	40	80	40	40	80
19. Bhopal	2	2	4	2	2	4	2	2	4	2	2	4
20. Vindhya Pradesh	8	8	16	8	8	16	8	8	16	8	8	16
(v) Central India	116	116	232	116	116	232	116	116	232	116	116	232
21. Rajasthan	34	34	68	34	34	68	34	34	68	34	34	68
22. Punjab	28	28	56	28	28	56	28	28	56	28	28	56
23. PEPSU	8	8	16	8	8	16	8	8	16	8	8	16
24. Jammu and Kashmir	40	40	80	40	40	80	40	40	80	40	40	80
25. Ajmer	2	2	4	2	2	4	2	2	4	2	2	4
26. Delhi	2	2	4	2	2	4	2	2	4	2	2	4
27. Himachal Pradesh	2	2	4	2	2	4	2	2	4	2	2	4
(vi) North-West India	116	116	232	116	116	232	116	116	232	116	116	232
(vii) all India	812	812	1624	812	812	1624	812	812	1624	808	808	1616

*Including 4 uninhabited villages.

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TABLE (1.20) : DISTRIBUTION OF SAMPLE HOUSEHOLDS BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES IN RURAL AREAS

reference period : month

monthly per capita expenditure classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0—8	1	20	31	44	17	41	16	169
	2	29	31	29	16	40	14	159
	combined	49	62	73	33	81	30	328
8—11	1	26	27	25	14	22	19	133
	2	26	35	35	16	25	14	151
	combined	52	62	60	30	47	33	284
11—13	1	20	23	21	7	11	9	91
	2	13	25	18	11	11	7	85
	combined	33	48	39	18	22	16	176
13—15	1	12	19	10	6	7	14	68
	2	16	23	15	2	10	7	73
	combined	28	42	25	8	17	21	141
15—18	1	16	24	20	4	6	15	85
	2	10	16	21	3	10	13	73
	combined	26	40	41	7	16	28	158
18—21	1	14	18	15	5	9	9	70
	2	18	20	15	7	2	14	76
	combined	32	38	30	12	11	23	146
21—24	1	12	13	9	3	5	8	50
	2	9	18	11	5	7	16	66
	combined	21	31	20	8	12	24	116
24—28	1	2	19	4	5	4	10	44
	2	6	15	5	4	4	8	42
	combined	8	34	9	9	8	18	86
28—34	1	11	11	6	3	5	6	42
	2	7	6	4	3	3	9	32
	combined	18	17	10	6	8	15	74
34—43	1	3	8	2	3	3	3	22
	2	3	8	5	—	2	6	24
	combined	6	16	7	3	5	9	46
43—55	1	1	4	3	—	1	3	12
	2	2	3	3	—	1	5	14
	combined	3	7	6	—	2	8	26
55 and above	1	3	7	5	1	2	4	22
	2	1	4	3	1	1	3	13
	combined	4	11	8	2	3	7	35
all expenditure classes	1	140	204	164	68	116	116	808
	2	140	204	164	68	116	116	808
	combined	280	408	328	136	232	232	1616
number of sample villages	1	140	208	164	68	116	116	812
	2	140	208	164	68	116	116	812
	combined	280	416	328	136	232	232	1624

CONSUMER EXPENDITURE

TABLE (1.30) : PERCENTAGE DISTRIBUTION OF ESTIMATED NUMBER OF HOUSEHOLDS
BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION
ZONES IN RURAL AREAS

reference period : month

monthly per capita expenditure classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0—8	1	13.61	14.86	26.78	22.64	39.80	17.50	22.01
	2	19.63	15.18	16.69	19.72	35.77	20.38	20.52
	combined	16.58	15.02	21.80	21.20	37.79	18.95	21.27
8—11	1	18.81	13.35	17.82	26.72	19.02	17.35	17.81
	2	18.98	17.01	20.62	23.21	22.79	10.36	18.92
	combined	18.90	15.16	19.20	24.98	20.91	13.82	18.35
11—13	1	14.60	11.55	13.89	10.04	7.96	7.09	11.46
	2	9.80	11.84	10.27	15.85	10.12	3.89	10.41
	combined	12.23	11.69	12.11	12.89	9.04	5.48	10.92
13—15	1	9.27	9.28	6.43	7.73	6.60	8.21	8.01
	2	10.77	11.28	8.50	3.14	7.14	4.06	8.46
	combined	10.01	10.26	7.45	5.48	6.87	6.11	8.24
15—18	1	11.08	10.68	10.56	4.95	4.50	10.90	9.26
	2	7.01	7.78	15.58	6.20	7.83	10.51	9.41
	combined	9.07	9.25	13.03	5.57	6.16	10.70	9.34
18—21	1	9.82	8.37	10.01	3.57	7.13	11.69	8.67
	2	12.84	8.61	9.14	9.75	1.92	11.80	8.86
	combined	11.31	8.49	9.58	6.61	4.52	11.75	8.78
21—24	1	8.26	5.93	4.73	5.54	4.30	3.42	5.56
	2	6.83	9.83	8.30	5.94	5.86	16.49	8.67
	combined	7.55	7.86	6.49	5.74	5.08	10.01	7.10
24—28	1	1.51	9.67	2.06	8.58	2.38	10.82	5.45
	2	3.90	8.19	2.23	7.41	2.55	7.71	5.15
	combined	2.69	8.93	2.15	8.01	2.46	9.26	5.30
28—34	1	7.99	5.21	3.16	5.28	3.60	5.15	5.04
	2	5.35	1.98	2.91	4.21	2.67	5.58	3.48
	combined	6.69	3.61	3.04	4.76	3.14	5.37	4.27
34—43	1	2.09	4.49	1.10	4.04	2.33	1.74	2.68
	2	2.40	3.92	2.69	—	1.51	4.34	2.69
	combined	2.24	4.21	1.88	2.05	1.92	3.05	2.69
43—55	1	0.68	2.43	1.66	—	1.09	2.22	1.49
	2	1.62	1.19	1.68	—	0.83	3.11	1.40
	combined	1.15	1.82	1.67	—	0.96	2.67	1.45
55 and above	1	2.28	4.20	1.80	0.91	1.29	3.91	2.56
	2	0.87	3.19	1.39	4.57	1.01	1.77	2.03
	combined	1.58	3.70	1.60	2.71	1.15	2.83	2.29
all expenditure classes	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	2	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	combined	100.00	100.00	100.00	100.00	100.00	100.00	100.00
number of sample villages	1	140	208	164	68	116	116	812
	2	140	208	164	68	116	116	812
	combined	280	416	328	136	232	232	1624
number of sample households	1	140	204	164	68	116	116	808
	2	140	204	164	68	116	116	808
	combined	280	408	328	136	232	232	1616

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TABLE (1.40) : PERCENTAGE DISTRIBUTION OF ESTIMATED NUMBER OF PERSONS BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES IN RURAL AREAS

reference period : month

monthly per capita expenditure classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0—8	1	14.29	16.15	30.29	22.61	46.13	19.43	23.90
	2	22.07	15.55	17.95	22.61	37.07	22.80	21.99
	combined	18.08	15.85	24.06	22.61	41.39	21.15	22.95
8—11	1	21.64	13.42	14.16	34.00	19.51	19.93	18.67
	2	19.54	18.81	22.79	32.17	21.36	12.85	20.95
	combined	20.61	16.11	18.52	33.05	20.48	16.33	19.82
11—13	1	16.30	10.57	13.83	11.64	7.34	5.67	11.44
	2	11.63	12.52	8.57	12.05	10.18	3.10	10.11
	combined	14.02	11.54	11.17	11.85	8.82	4.36	10.77
13—15	1	8.90	10.89	7.71	7.34	6.28	8.40	8.60
	2	12.17	11.09	9.94	2.74	7.56	5.28	9.02
	combined	10.49	10.99	8.84	4.96	6.95	6.81	8.81
15—18	1	10.75	9.70	13.41	4.51	3.77	15.02	9.90
	2	5.94	5.80	16.38	4.98	6.05	11.13	8.54
	combined	8.41	7.76	14.91	4.75	4.96	13.04	9.22
18—21	1	11.28	8.18	6.93	1.19	5.85	9.88	7.70
	2	11.43	8.49	8.14	10.10	3.68	7.73	8.28
	combined	11.36	8.33	7.54	5.82	4.72	8.78	7.99
21—24	1	7.51	7.19	4.04	4.67	2.49	4.09	5.36
	2	6.44	11.62	6.11	3.87	3.47	12.89	7.68
	combined	6.99	9.40	5.08	4.25	3.00	8.57	6.53
24—28	1	1.56	9.02	2.39	8.58	1.74	7.61	5.02
	2	2.92	6.93	2.96	6.97	1.67	7.67	4.69
	combined	2.23	7.97	2.67	7.74	1.71	7.64	4.85
28—34	1	6.21	7.63	3.01	2.83	4.00	3.29	4.97
	2	4.29	1.90	1.95	3.73	2.24	9.71	3.43
	combined	5.28	4.77	2.48	3.30	3.08	6.56	4.19
34—43	1	0.76	2.83	0.64	2.46	1.79	3.29	1.86
	2	1.03	2.16	2.18	—	4.57	3.75	2.29
	combined	0.89	2.50	1.42	1.18	3.24	3.52	2.07
43—55	1	0.13	1.21	2.01	—	0.24	2.06	1.01
	2	2.03	1.81	1.25	—	1.30	2.73	1.57
	combined	1.05	1.51	1.63	—	0.80	2.40	1.29
55 and above	1	0.67	3.21	1.58	0.17	0.86	1.33	1.57
	2	0.51	3.32	1.78	0.78	0.85	0.36	1.45
	combined	0.59	3.27	1.68	0.49	0.85	0.84	1.51
all expenditure classes	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	2	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	combined	100.00	100.00	100.00	100.00	100.00	100.00	100.00
number of sample villages	1	140	208	164	68	116	116	812
	2	140	208	164	68	116	116	812
	combined	280	416	328	136	232	232	1624
number of sample households	1	140	204	164	68	116	116	808
	2	140	204	164	68	116	116	808
	combined	280	408	328	136	232	232	1616

CONSUMER EXPENDITURE

TABLE (1.50) : AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES IN RURAL AREAS

reference period : month

monthly per capita expenditure sample classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0—8	1	5.53	5.59	5.60	5.27	5.36	6.15	5.53
	2	5.79	5.32	5.59	6.75	5.26	6.30	5.65
	combined	5.68	5.45	5.59	5.95	5.31	6.23	5.59
8—11	1	6.06	5.16	3.93	6.72	4.74	6.36	5.34
	2	5.30	5.76	5.74	8.16	4.90	6.99	5.84
	combined	5.68	5.49	4.89	7.38	4.83	6.60	5.60
11—13	1	5.88	4.69	4.93	6.13	4.26	4.43	5.08
	2	6.10	5.50	4.33	4.47	5.10	4.49	5.12
	combined	5.97	5.10	4.68	5.13	4.73	4.45	5.11
13—15	1	5.06	6.02	5.93	5.01	4.40	5.67	5.47
	2	5.82	5.12	6.07	5.13	5.37	7.33	5.62
	combined	5.46	5.53	6.01	5.04	4.90	6.22	5.55
15—18	1	5.11	4.66	6.29	4.80	3.88	7.63	5.45
	2	4.36	3.88	5.46	4.72	3.92	5.97	4.79
	combined	4.83	4.33	5.80	4.76	3.90	6.81	5.12
18—21	1	6.05	5.02	3.43	1.76	3.80	4.68	4.52
	2	4.58	5.13	4.68	6.10	9.70	3.69	4.93
	combined	5.23	5.07	3.99	4.91	5.05	4.18	4.73
21—24	1	4.79	6.22	4.23	4.44	2.68	6.63	4.91
	2	4.85	6.15	3.82	3.83	3.00	4.41	4.67
	combined	4.82	6.18	3.97	4.13	2.86	4.78	4.77
24—28	1	5.45	4.78	5.73	5.28	3.38	3.89	4.69
	2	3.86	4.40	6.88	5.53	3.33	5.61	4.80
	combined	4.31	4.61	6.32	5.39	3.35	4.61	4.74
28—34	1	4.10	7.50	4.72	2.83	5.13	3.54	5.03
	2	4.12	5.00	3.49	5.20	4.24	9.81	5.22
	combined	4.11	6.82	4.14	3.86	4.76	6.83	5.10
34—43	1	1.92	3.23	2.87	3.22	3.55	10.49	3.52
	2	2.20	2.86	4.22	—	15.32	4.86	4.48
	combined	2.07	3.06	3.82	3.22	8.18	6.45	4.00
43—55	1	1.00	2.56	5.97	—	1.00	5.13	3.43
	2	6.43	7.88	3.87	—	8.00	4.94	5.92
	combined	4.79	4.29	4.93	—	4.02	5.02	4.62
55 and above	1	1.55	3.93	4.36	1.00	3.08	1.89	3.13
	2	3.00	5.41	6.64	1.00	1.00	1.15	3.76
	combined	1.94	4.56	5.34	1.00	2.16	1.66	3.41
all expenditure classes	1	5.27	5.13	4.95	5.28	4.62	5.54	5.09
	2	5.15	5.20	5.19	5.88	5.07	5.63	5.28
	combined	5.21	5.17	5.07	5.58	4.58	5.59	5.18
number of sample villages	1	140	208	164	68	116	116	812
	2	140	208	164	68	116	116	812
	combined	280	416	328	136	232	232	1624
number of sample households	1	140	204	164	68	116	116	808
	2	140	204	164	68	116	116	808
	combined	280	408	328	136	232	232	1616

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TABLE (1.60) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN RURAL AREAS : ALL INDIA

reference period : month

number of sample villages : 1624 ($s_1 = 812$, $s_2 = 812$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.10	3.28	3.19	4.88	4.79	4.83	5.75	5.87	5.81
2. milk and milk products	0.23	0.16	0.20	0.54	0.52	0.53	0.71	0.99	0.84
3. edible oil	0.17	0.15	0.16	0.28	0.26	0.27	0.41	0.35	0.38
4. meat, egg and fish	0.11	0.10	0.11	0.18	0.25	0.22	0.35	0.31	0.33
5. sugar	0.08	0.08	0.08	0.23	0.23	0.23	0.28	0.30	0.29
6. salt	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.05	0.06
7. other food	0.76	0.72	0.74	1.16	1.16	1.16	1.47	1.43	1.45
(i) food total	4.49	4.53	4.52	7.32	7.26	7.29	9.03	9.30	9.16
8. clothing	0.17	0.31	0.24	0.46	0.61	0.54	0.76	0.59	0.68
9. fuel and light	0.66	0.50	0.58	0.88	0.81	0.84	1.04	1.02	1.03
10. rent	—	0.00	0.00	0.02	0.00	0.01	0.00	—	0.00
11. taxes	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
12. miscellaneous	0.50	0.44	0.47	0.86	0.82	0.84	1.20	1.13	1.17
(ii) non-food total	1.33	1.25	1.29	2.22	2.24	2.23	3.00	2.74	2.88
(iii) total	5.82	5.78	5.81	9.54	9.50	9.52	12.03	12.04	12.04
(iv) number of sample households	169	159	328	133	151	284	91	85	176
(v) average household size	5.53	5.65	5.59	5.34	5.84	5.60	5.08	5.12	5.11

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	6.31	6.02	6.16	6.30	6.45	6.37	6.83	7.14	6.99	7.14	8.10	7.71
2.	1.27	1.05	1.16	1.80	1.19	1.51	2.46	1.74	2.09	1.90	2.92	2.50
3.	0.39	0.46	0.42	0.40	0.48	0.44	0.46	0.64	0.56	0.67	0.65	0.66
4.	0.41	0.38	0.39	0.58	0.46	0.52	0.57	0.55	0.56	0.98	0.58	0.74
5.	0.34	0.40	0.37	0.55	0.59	0.57	0.56	0.62	0.59	0.84	0.60	0.70
6.	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07
7.	1.60	1.78	1.69	2.05	2.02	2.04	2.08	2.49	2.30	2.93	2.81	2.86
(i)	10.38	10.15	10.25	11.74	11.25	11.51	13.03	13.25	13.16	14.53	15.73	15.24
8.	1.11	0.86	0.98	1.70	1.31	1.51	1.97	2.04	2.01	2.01	1.74	1.85
9.	1.00	0.98	0.99	0.98	1.34	1.15	1.13	1.05	1.09	1.41	1.25	1.32
10.	—	—	—	0.02	—	0.01	0.00	0.01	0.01	0.02	0.02	0.02
11.	0.03	0.01	0.02	0.01	0.01	0.01	0.03	0.00	0.02	0.03	0.04	0.03
12.	1.58	1.86	1.72	1.96	2.53	2.23	3.13	2.96	3.04	4.56	3.52	3.95
(ii)	3.72	3.71	3.71	4.67	5.19	4.91	6.26	6.06	6.17	8.03	6.57	7.17
(iii)	14.10	13.86	13.96	16.41	16.44	16.42	19.29	19.31	19.33	22.56	22.30	22.41
(iv)	68	73	141	85	73	158	70	76	146	50	66	116
(v)	5.47	5.62	5.55	5.45	4.79	5.12	4.52	4.93	4.73	4.91	4.67	4.77

CONSUMER EXPENDITURE

TABLE (1.60) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : ALL INDIA

reference period : month

number of sample villages : 1624 ($s_1 = 812$, $s_2 = 812$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	8.03	8.09	8.06	9.62	7.69	8.83
2. milk and milk products	2.84	3.14	2.98	2.71	3.20	2.91
3. edible oil	0.73	0.65	0.69	0.87	0.48	0.71
4. meat, egg and fish	1.30	0.61	0.96	1.09	0.96	1.04
5. sugar	0.71	1.00	0.85	0.85	1.18	0.98
6. salt	0.08	0.06	0.07	0.07	0.07	0.07
7. other food	3.01	3.09	3.05	3.19	3.16	3.18
(i) food total	16.70	16.64	16.66	18.40	16.74	17.72
8. clothing	2.67	2.54	2.61	3.83	4.43	4.08
9. fuel and light	1.31	1.66	1.48	1.55	1.35	1.47
10. rent	0.16	0.18	0.17	—	—	—
11. taxes	0.01	0.13	0.07	0.06	0.04	0.05
12. miscellaneous	4.72	4.48	4.61	6.43	7.79	6.99
(ii) non-food total	8.87	8.99	8.94	11.87	13.67	12.59
(iii) total	25.57	25.63	25.60	30.27	30.35	30.31
(iv) number of sample households	44	42	86	42	32	74
(v) average household size	4.69	4.80	4.74	5.03	5.22	5.10

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	9.45	7.12	8.15	9.42	8.01	8.55	11.48	10.75	11.13	5.71	5.72	5.71
2.	3.80	4.81	4.36	4.49	5.63	5.19	3.65	3.62	3.64	1.27	1.32	1.29
3.	0.94	1.19	1.08	0.77	0.89	0.84	1.07	1.92	1.48	0.40	0.42	0.41
4.	0.67	0.88	0.78	1.08	1.40	1.27	2.32	3.01	2.66	0.47	0.40	0.44
5.	1.13	1.19	1.16	1.16	1.70	1.49	0.95	1.02	0.98	0.39	0.43	0.41
6.	0.07	0.08	0.07	0.10	0.08	0.08	0.11	0.13	0.12	0.06	0.06	0.06
7.	4.12	4.08	4.09	3.81	5.16	4.64	5.79	6.06	5.92	1.74	1.82	1.78
(i)	20.18	19.35	19.69	20.83	22.87	22.06	25.37	26.51	25.93	10.04	10.17	10.10
8.	4.76	4.48	4.60	8.32	4.79	6.16	4.29	5.60	4.92	1.30	1.28	1.29
9.	2.22	1.79	1.98	1.87	2.25	2.10	1.46	2.05	1.74	1.01	1.00	1.01
10.	0.18	—	0.08	—	0.14	0.08	0.27	4.94	2.53	0.02	0.09	0.05
11.	0.04	0.03	0.03	0.02	0.22	0.14	0.11	—	0.06	0.01	0.02	0.02
12.	9.39	12.27	10.99	15.16	16.17	15.78	35.99	32.59	34.34	2.68	2.77	2.73
(ii)	16.59	18.57	17.68	25.37	23.57	24.26	42.12	45.18	43.59	5.02	5.16	5.10
(iii)	36.77	37.92	37.37	46.20	46.44	46.32	67.49	71.69	69.52	15.06	15.33	15.20
(iv)	22	24	46	12	14	26	22	13	35	808	808	1616
(v)	3.52	4.48	4.00	3.43	5.92	4.62	3.13	3.76	3.41	5.09	5.28	5.18

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.61) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH INDIA

reference period : month

number of sample villages : 280 ($s_1 = 140$; $s_2 = 140$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.28	3.40	3.55	5.03	5.00	5.01	5.44	5.90	5.63
2. milk and milk products	0.31	0.04	0.15	0.51	0.50	0.51	1.14	1.02	1.09
3. edible oil	0.22	0.16	0.18	0.35	0.29	0.32	0.33	0.36	0.34
4. meat, egg and fish	0.05	0.05	0.05	0.11	0.07	0.09	0.05	0.09	0.06
5. sugar	0.10	0.09	0.09	0.30	0.26	0.28	0.29	0.29	0.29
6. salt	0.03	0.03	0.03	0.04	0.05	0.04	0.04	0.04	0.04
7. other food	0.86	0.83	0.85	1.43	1.44	1.44	1.53	1.57	1.55
(i) food total	4.85	4.60	4.70	7.77	7.61	7.69	8.82	9.27	9.00
8. clothing	0.24	0.38	0.32	0.62	0.80	0.70	0.74	0.70	0.73
9. fuel and light	0.67	0.47	0.55	0.83	0.86	0.84	0.95	0.92	0.94
10. rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	0.56	0.41	0.47	0.70	0.49	0.61	1.49	1.13	1.33
(ii) non-food total	1.47	1.26	1.34	2.15	2.15	2.15	3.18	2.75	3.00
(iii) total	6.32	5.86	6.04	9.92	9.76	9.84	12.00	12.02	12.00
(iv) number of sample households	20	29	49	26	26	52	20	13	33
(v) average household size	5.53	5.79	5.68	6.06	5.30	5.68	5.88	6.10	5.97

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	6.20	5.01	5.53	5.33	6.74	5.82	5.31	6.61	5.95	6.71	7.04	6.86
2.	1.70	1.44	1.56	2.43	0.89	1.90	3.20	1.75	2.49	2.03	3.66	2.76
3.	0.46	0.54	0.50	0.53	0.48	0.51	0.54	0.82	0.68	0.58	0.51	0.55
4.	0.12	0.32	0.24	0.43	0.17	0.34	0.39	0.49	0.44	0.56	0.25	0.42
5.	0.49	0.43	0.46	0.88	1.11	0.96	0.68	0.78	0.73	1.00	0.79	0.91
6.	0.04	0.05	0.05	0.04	0.03	0.04	0.06	0.05	0.05	0.06	0.04	0.05
7.	1.25	1.89	1.59	1.94	1.60	1.82	2.20	2.76	2.47	2.35	3.04	2.66
(i)	10.26	9.68	9.93	11.58	11.02	11.39	12.38	13.26	12.81	13.29	15.33	14.21
8.	1.24	1.09	1.16	1.76	1.49	1.67	2.29	2.06	2.18	2.89	2.17	2.57
9.	0.96	1.06	1.02	1.30	1.16	1.25	0.93	1.06	0.99	1.16	1.47	1.30
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00
11.	0.01	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.04	0.12	0.00	0.07
12.	1.80	1.96	1.89	2.14	2.83	2.38	3.19	2.84	3.02	5.20	2.97	4.19
(ii)	4.01	4.11	4.07	5.20	5.48	5.30	6.51	5.98	6.25	9.37	6.61	8.13
(iii)	14.27	13.79	14.00	16.78	16.50	16.69	18.89	19.24	19.06	22.66	21.94	22.34
(iv)	12	16	28	16	10	26	14	18	32	12	9	21
(v)	5.06	5.82	5.46	5.11	4.36	4.83	6.05	4.58	5.23	4.79	4.85	4.82

CONSUMER EXPENDITURE

TABLE (1.61) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH INDIA

reference period : month

number of sample villages : 280 ($s_1 = 140$, $s_2 = 140$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	4.77	9.08	7.53	8.72	8.19	8.51
2. milk and milk products	3.81	2.33	2.86	4.67	3.60	4.24
3. edible oil	0.83	0.37	0.54	0.78	0.40	0.63
4. meat, egg and fish	0.20	0.49	0.39	1.15	0.78	1.00
5. sugar	0.99	0.85	0.90	0.90	1.20	1.02
6. salt	0.03	0.06	0.05	0.05	0.06	0.05
7. other food	3.24	3.58	3.45	2.77	3.39	3.03
(i) food total	13.87	16.76	15.72	19.04	17.62	18.48
8. clothing	5.61	1.46	2.95	4.19	3.29	3.84
9. fuel and light	0.94	2.15	1.72	2.11	1.44	1.84
10. rent	0.00	1.42	0.91	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.14	0.00	0.09
12. miscellaneous	4.75	3.97	4.25	4.82	7.30	5.80
(ii) non-food total	11.30	9.00	9.83	11.26	12.03	11.57
(iii) total	25.17	25.76	25.55	30.30	29.65	30.05
(iv) number of sample households	2	6	8	11	7	18
(v) average household size	5.45	3.86	4.31	4.10	4.12	4.11

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	6.12	8.79	7.62	9.25	6.51	6.68	11.11	18.83	14.33	5.42	5.57	5.49
2.	0.62	5.46	3.35	5.06	9.20	8.94	11.04	7.00	9.36	1.70	1.39	1.55
3.	0.71	1.24	1.01	1.00	0.38	0.42	1.28	1.00	1.16	0.44	0.41	0.42
4.	0.12	0.00	0.05	0.62	0.00	0.04	1.57	0.00	0.92	0.27	0.20	0.24
5.	0.42	1.25	0.89	1.00	2.19	2.11	3.13	1.54	2.47	0.51	0.50	0.51
6.	0.07	0.10	0.09	0.06	0.03	0.04	0.12	0.04	0.08	0.04	0.04	0.04
7.	4.10	3.25	3.62	3.49	4.07	4.03	7.17	6.13	6.73	1.74	1.89	1.81
(i)	12.16	20.09	16.63	20.48	22.38	22.26	35.42	34.54	35.05	10.12	10.00	10.06
8.	10.44	7.21	8.62	1.00	5.79	5.48	5.65	8.73	6.94	1.53	1.34	1.44
9.	3.47	1.56	2.39	2.87	3.78	3.72	2.97	1.21	2.23	1.04	1.02	1.03
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02
11.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01
12.	12.31	10.10	11.07	23.06	11.63	12.36	18.43	23.21	20.43	2.24	2.12	2.18
(ii)	26.22	18.87	22.08	26.93	21.20	21.56	27.05	33.15	29.60	4.84	4.52	4.68
(iii)	38.38	38.96	38.71	47.41	43.58	43.82	62.47	67.69	64.65	14.96	14.52	14.74
(iv)	3	3	6	1	2	3	3	1	4	140	140	280
(v)	1.92	2.20	2.07	1.00	6.42	4.79	1.55	3.00	1.94	5.27	5.15	5.21

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.62) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : EAST INDIA

reference period : month. number of sample villages : 416 ($s_1 = 208$, $s_2 = 208$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.40	3.62	3.50	5.73	5.90	5.83	7.29	6.52	6.87
2. milk and milk products	0.03	0.05	0.04	0.29	0.15	0.21	0.16	0.56	0.38
3. edible oil	0.12	0.14	0.13	0.22	0.22	0.22	0.33	0.37	0.35
4. meat, egg and fish	0.11	0.16	0.13	0.36	0.34	0.35	0.47	0.59	0.53
5. sugar	0.01	0.04	0.02	0.06	0.11	0.09	0.08	0.19	0.14
6. salt	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06
7. other food	0.68	0.68	0.69	0.90	1.02	0.97	1.12	1.18	1.16
(i) food total	4.41	4.74	4.57	7.62	7.80	7.73	9.51	9.47	9.49
8. clothing	0.08	0.28	0.18	0.45	0.48	0.47	0.61	0.59	0.60
9. fuel and light	0.55	0.51	0.53	0.81	0.72	0.76	1.02	0.95	0.98
10. rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01
12. miscellaneous	0.42	0.57	0.49	0.78	0.59	0.67	0.88	1.04	0.97
(ii) non-food total	1.05	1.36	1.20	2.05	1.79	1.90	2.53	2.58	2.56
(iii) total	5.46	6.10	5.77	9.67	9.59	9.63	12.04	12.05	12.05
(iv) number of sample households	31	31	62	27	35	62	23	25	48
(v) average household size	5.59	5.32	5.45	5.16	5.76	5.49	4.69	5.50	5.10

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	8.01	7.71	7.86	7.67	8.18	7.86	9.15	8.27	8.70	8.83	9.37	9.16
2.	0.37	0.34	0.36	11.19	0.22	0.83	1.04	1.13	1.09	1.61	1.89	1.78
3.	0.41	0.47	0.44	0.37	0.53	0.42	0.37	0.63	0.50	0.54	0.69	0.63
4.	0.44	0.41	0.43	1.25	0.61	1.01	0.85	0.90	0.88	1.67	0.91	1.20
5.	0.16	0.18	0.17	0.21	0.22	0.21	0.41	0.48	0.44	0.50	0.46	0.48
6.	0.08	0.07	0.08	0.09	0.08	0.08	0.08	0.12	0.10	0.08	0.09	0.08
7.	1.43	1.56	1.48	1.74	1.98	1.85	1.78	2.81	2.31	2.93	2.86	2.90
(i)	10.90	10.74	10.82	12.52	11.82	12.26	13.68	14.34	14.02	16.16	16.27	16.23
8.	0.79	0.90	0.85	1.11	0.87	1.02	2.12	1.33	1.72	1.37	1.82	1.65
9.	1.08	0.90	0.99	0.88	1.10	0.96	1.14	1.04	1.09	1.08	1.04	1.05
10.	0.00	0.00	0.00	0.04	0.00	0.02	0.00	0.02	0.01	0.04	0.04	0.04
11.	0.00	0.00	0.00	0.01	0.03	0.02	0.00	0.01	0.01	0.00	0.01	0.01
12.	1.46	1.43	1.44	1.97	2.15	2.04	2.61	2.39	2.49	3.87	3.29	3.51
(ii)	3.33	3.23	3.28	4.01	4.15	4.06	5.87	4.79	5.32	6.36	6.20	6.26
(iii)	14.23	13.97	14.10	16.53	15.97	16.32	19.55	19.13	19.34	22.52	22.47	22.49
(iv)	19	23	42	24	16	40	18	20	38	13	18	31
(v)	6.02	5.12	5.53	4.66	3.88	4.33	5.02	5.13	5.07	6.22	6.15	6.18

CONSUMER EXPENDITURE

TABLE (1.62) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: EAST INDIA

reference period : month			number of sample villages : 416 ($s_1 = 208, s_2 = 208$)								
monthly per capita expenditure classes in rupees											
items			24-28			28-34					
			s. 1	s. 2	comb.	s. 1	s. 2	comb.			
(1)			(23)	(24)	(25)	(26)	(27)	(28)			
1. foodgrains			10.03	9.70	9.89	11.48	11.35	11.45			
2. milk and milk products			1.66	1.92	1.77	2.19	1.83	2.12			
3. edible oil			0.65	0.73	0.68	0.87	0.71	0.84			
4. meat, egg and fish			1.90	0.89	1.47	1.38	1.83	1.47			
5. sugar			0.57	0.60	0.58	0.66	0.52	0.63			
6. salt			0.08	0.09	0.08	0.08	0.10	0.09			
7. other food			2.80	3.24	3.00	3.04	2.83	3.00			
(i) food total			17.69	17.17	17.47	19.70	19.17	19.60			
8. clothing			2.39	2.29	2.35	2.70	6.22	3.40			
9. fuel and light			1.22	1.80	1.47	1.17	1.58	1.25			
10. rent			0.03	0.01	0.02	0.00	0.00	0.00			
11. taxes			0.00	0.21	0.09	0.04	0.01	0.03			
12. miscellaneous			4.71	4.02	3.84	6.91	3.74	6.29			
(ii) non-food total			7.35	8.33	7.77	10.82	11.55	10.97			
(iii) total			25.04	25.50	25.24	30.52	30.72	30.57			
(iv) number of sample households			19	15	34	11	6	17			
(v) average household size			4.78	4.40	4.61	7.50	5.00	6.82			

monthly per capita expenditure classes in rupees												
srl. no.	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	11.28	12.06	11.62	14.32	8.67	10.95	15.59	12.11	13.83	7.86	7.32	7.59
2.	3.85	2.73	3.36	0.70	2.34	1.68	1.85	3.22	2.54	0.91	0.85	0.88
3.	0.99	1.90	1.38	1.03	1.11	1.08	1.20	2.68	1.95	0.44	0.54	0.49
4.	0.70	1.74	1.15	1.01	2.91	2.14	2.88	3.60	3.24	0.88	0.73	0.80
5.	0.89	0.96	0.92	0.63	1.13	0.93	0.61	1.01	0.81	0.28	0.30	0.29
6.	0.07	0.13	0.10	0.14	0.06	0.09	0.12	0.16	0.14	0.08	0.08	0.08
7.	5.03	4.52	4.81	5.44	5.05	5.21	5.40	6.04	5.73	1.89	1.97	1.93
(i)	22.81	24.04	23.34	23.27	21.27	22.08	27.65	28.82	28.24	12.34	11.79	12.06
8.	2.78	3.79	3.22	9.33	6.22	7.48	2.99	6.20	4.61	1.31	1.36	1.34
9.	2.07	2.77	2.37	2.00	1.55	1.73	0.92	1.98	1.46	0.99	1.02	1.00
10.	0.32	0.00	0.18	0.00	0.00	0.00	0.14	1.52	0.84	0.02	0.06	0.04
11.	0.07	0.09	0.08	0.00	0.00	0.00	0.13	0.00	0.06	0.01	0.02	0.02
12.	8.93	6.21	7.75	10.64	20.63	16.59	37.22	26.72	31.91	3.56	2.94	3.24
(ii)	14.17	12.86	13.60	21.97	28.40	25.80	41.40	36.42	38.88	5.89	5.40	5.64
(iii)	36.98	36.90	36.94	45.24	49.67	47.88	69.05	65.24	67.12	18.23	17.19	17.70
(iv)	8	8	16	4	3	7	7	4	11	204	204	408
(v)	3.23	2.86	3.06	2.56	7.88	4.29	3.93	5.41	4.56	5.13	5.20	5.17

TABLE (1.63) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : SOUTH INDIA

reference period : month

number of sample villages : 328 ($s_1 = 164$, $s_2 = 164$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	2.97	3.40	3.13	5.18	4.53	4.78	5.52	5.98	5.70
2. milk and milk products	0.08	0.11	0.09	0.18	0.39	0.31	0.46	0.60	0.51
3. edible oil	0.16	0.20	0.17	0.24	0.26	0.25	0.46	0.32	0.40
4. meat, egg and fish	0.16	0.25	0.19	0.32	0.50	0.43	0.60	0.37	0.51
5. sugar	0.04	0.06	0.05	0.04	0.11	0.09	0.25	0.13	0.20
6. salt	0.04	0.04	0.04	0.05	0.05	0.05	0.07	0.05	0.06
7. other food	0.64	0.75	0.69	1.16	1.19	1.17	1.75	1.69	1.74
(i) food total	4.09	4.81	4.36	7.17	7.03	7.08	9.11	9.14	9.12
8. clothing	0.18	0.26	0.21	0.03	0.44	0.29	0.77	0.37	0.62
9. fuel and light	0.62	0.48	0.56	0.96	0.81	0.87	1.03	0.97	1.01
10. rent	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	0.49	0.57	0.53	0.93	1.05	1.00	1.15	1.60	1.32
(ii) non-food total	1.29	1.32	1.30	1.92	2.30	2.16	2.95	2.94	2.95
(iii) total	5.38	6.13	5.66	9.09	9.33	9.24	12.06	12.08	12.07
(iv) number of sample households	44	29	73	25	35	60	21	18	39
(v) average household size	5.60	5.59	5.59	3.93	5.74	4.89	4.93	4.33	4.68

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.22	5.81	5.56	6.23	6.36	6.30	6.38	6.60	6.50	6.67	7.69	7.29
2.	1.02	0.79	0.89	0.94	0.60	0.75	0.90	1.68	1.32	1.13	1.44	1.32
3.	0.37	0.45	0.41	0.35	0.49	0.43	0.52	0.67	0.60	1.25	0.87	1.02
4.	0.74	0.60	0.66	0.56	0.61	0.59	1.08	0.87	0.96	1.23	1.04	1.12
5.	0.31	0.37	0.34	0.39	0.35	0.37	0.44	0.28	0.36	0.42	0.38	0.39
6.	0.05	0.05	0.05	0.05	0.07	0.06	0.07	0.08	0.07	0.06	0.06	0.06
7.	2.40	2.07	2.22	2.73	2.39	2.54	2.77	2.42	2.59	4.42	3.55	3.89
(i)	10.11	10.14	10.13	11.25	10.87	11.04	12.16	12.60	12.40	15.18	15.03	15.09
8.	1.15	0.54	0.81	2.39	1.53	1.91	0.92	2.14	1.59	0.94	2.10	1.64
9.	1.12	0.98	1.04	0.90	1.44	1.20	1.22	1.12	1.17	1.93	1.15	1.46
10.	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
11.	0.11	0.02	0.06	0.00	0.00	0.00	0.05	0.00	0.02	0.01	0.00	0.00
12.	1.62	1.95	1.80	2.04	2.73	2.43	4.66	3.54	4.05	4.70	3.49	3.97
(ii)	4.00	3.49	3.71	5.36	5.70	5.55	6.85	6.80	6.83	7.58	6.74	7.07
(iii)	14.11	13.63	13.84	16.61	16.57	16.59	19.01	19.40	19.23	22.76	21.77	22.16
(iv)	10	15	25	20	21	41	15	15	30	9	11	20
(v)	5.93	6.07	6.01	6.29	5.46	5.80	3.43	4.63	3.99	4.23	3.82	3.97

CONSUMER EXPENDITURE

TABLE (1.63) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: SOUTH INDIA

reference period : month

number of sample villages : 328 ($s_1 = 164$, $s_2 = 164$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	6.36	7.37	6.92	10.98	9.61	10.43
2. milk and milk products	0.86	1.50	1.22	1.98	1.33	1.72
3. edible oil	1.02	0.51	0.74	0.93	0.59	0.80
4. meat, egg and fish	0.95	1.24	1.11	1.25	1.20	1.23
5. sugar	0.33	0.61	0.48	0.59	0.58	0.59
6. salt	0.08	0.05	0.60	0.05	0.08	0.06
7. other food	3.62	3.96	3.82	3.75	3.80	3.77
(i) food total	13.22	15.24	14.35	19.53	17.19	18.60
8. clothing	3.56	2.54	2.99	3.84	3.72	3.79
9. fuel and light	1.84	1.67	1.74	1.51	1.63	1.56
10. rent	0.00	0.03	0.02	0.00	0.00	0.00
11. taxes	0.06	0.00	0.02	0.07	0.00	0.04
12. miscellaneous	7.04	6.26	6.62	4.44	6.49	5.26
(ii) non-food total	12.50	10.50	11.39	9.86	11.84	10.65
(iii) total	25.72	25.74	25.74	29.39	29.03	29.25
(iv) number of sample households	4	5	9	6	4	10
(v) average household size	5.73	6.88	6.32	4.72	3.49	4.14

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	10.80	7.14	7.96	6.77	10.20	8.10	5.60	4.66	5.10	5.12	5.55	5.34
2.	5.55	2.69	3.33	2.67	1.92	2.38	3.28	2.36	2.79	0.64	0.76	0.70
3.	1.42	1.27	1.30	0.72	1.66	1.08	1.08	0.52	0.78	0.40	0.44	0.42
4.	1.13	0.76	0.84	1.79	2.41	2.03	2.43	2.30	2.36	0.57	0.63	0.60
5.	0.81	0.75	0.76	0.42	0.70	0.53	1.09	0.48	0.76	0.23	0.25	0.24
6.	0.10	0.06	0.07	0.08	0.12	0.09	0.08	0.05	0.06	0.05	0.06	0.06
7.	6.00	5.15	5.34	2.72	7.18	4.47	7.19	5.42	6.25	1.95	2.05	2.00
(i)	25.81	17.82	19.60	15.17	24.19	18.68	20.75	15.79	18.10	8.96	9.74	9.36
8.	0.94	7.75	6.23	5.04	3.84	4.57	6.49	3.24	4.76	1.09	1.21	1.15
9.	1.87	1.90	1.89	1.42	2.20	1.72	2.28	1.45	1.84	1.00	1.02	1.01
10.	0.00	0.00	0.00	0.00	0.72	0.28	0.00	0.16	0.08	0.00	0.01	0.01
11.	0.17	0.00	0.04	0.00	1.38	0.54	0.18	0.00	0.08	0.02	0.02	0.02
12.	7.08	11.59	10.59	24.91	12.85	20.22	40.14	50.13	45.48	2.84	3.25	3.04
(ii)	10.06	21.24	18.75	31.37	20.99	27.33	49.09	54.98	52.24	4.95	5.51	5.23
(iii)	35.87	39.06	38.35	46.54	45.18	46.01	69.84	70.77	70.34	13.91	15.25	14.59
(iv)	2	5	7	3	3	6	5	3	8	164	164	328
(v)	2.87	4.22	3.82	5.97	3.87	4.93	4.36	6.64	5.34	4.95	5.19	5.07

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.64) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN RURAL AREAS : WEST INDIA

reference period : month

number of sample villages : 136 ($s_1 = 68$, $s_2 = 68$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.20	2.86	3.03	3.73	3.62	3.67	4.48	4.31	4.39
2. milk and milk products	0.61	0.38	0.49	0.69	1.17	0.94	1.03	2.61	1.87
3. edible oil	0.18	0.26	0.22	0.28	0.30	0.29	0.75	0.44	0.59
4. meat, egg and fish	0.07	0.09	0.08	0.11	0.13	0.12	0.42	0.08	0.24
5. sugar	0.18	0.19	0.19	0.39	0.48	0.44	0.70	0.78	0.74
6. salt	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
7. other food	0.72	1.07	0.89	1.42	1.30	1.35	1.47	1.49	1.47
(i) food total	4.99	4.88	4.93	6.66	7.04	6.85	8.89	9.75	9.34
8. clothing	0.05	0.52	0.29	0.39	0.24	0.31	0.20	0.16	0.18
9. fuel and light	0.84	0.59	0.68	0.98	0.91	0.94	1.47	1.15	1.30
10. rent	0.00	0.00	0.00	0.10	0.00	0.05	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	0.24	0.48	0.40	1.00	1.33	1.18	0.95	1.05	1.00
(ii) non-food total	1.13	1.59	1.37	2.47	2.48	2.48	2.62	2.36	2.48
(iii) total	6.12	6.47	6.30	9.13	9.52	9.33	11.51	12.11	11.82
(iv) number of sample households	17	16	33	14	16	30	7	11	18
(v) average household size	5.27	6.75	5.95	6.72	8.16	7.38	6.13	4.47	5.13

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.27	5.80	5.42	5.03	5.61	5.34	4.71	7.52	7.24	5.00	6.88	5.89
2.	1.11	1.51	1.23	3.28	3.83	3.58	1.84	2.58	2.51	1.91	3.03	2.44
3.	0.49	0.26	0.42	0.80	0.47	0.62	0.50	0.71	0.69	0.90	0.58	0.75
4.	0.86	0.00	0.61	0.22	0.24	0.13	0.74	0.06	0.13	0.00	0.14	0.07
5.	0.78	1.48	0.98	1.01	0.75	0.87	0.63	1.27	1.21	1.78	0.79	1.31
6.	0.04	0.04	0.04	0.04	0.04	0.04	0.08	0.08	0.08	0.04	0.03	0.03
7.	1.86	1.16	1.66	1.91	2.76	2.38	2.92	2.32	2.37	2.64	3.03	2.83
(i)	10.41	10.25	10.36	12.07	13.70	12.96	11.42	14.54	14.23	12.27	14.48	13.32
8.	1.00	—	0.71	0.32	0.32	0.32	3.24	2.42	2.50	2.75	0.50	1.68
9.	1.03	1.11	1.05	1.21	0.69	0.93	1.94	0.92	1.02	1.94	1.35	1.66
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.08
12.	1.30	2.22	1.57	2.06	0.98	1.47	2.38	1.52	1.61	5.99	5.47	5.76
(ii)	3.33	3.33	3.33	3.59	1.99	2.72	7.56	4.86	5.13	10.68	7.50	9.18
(iii)	13.74	13.58	13.69	15.66	15.69	15.68	18.98	19.40	19.36	22.95	21.98	22.50
(iv)	6	2	8	4	3	7	5	7	12	3	5	8
(v)	5.01	5.13	5.04	4.80	4.72	4.76	1.76	6.10	4.91	4.44	3.83	4.13

CONSUMER EXPENDITURE

TABLE (1.64) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : WEST INDIA

reference period : month		number of sample villages : 136 ($s_1 = 68$, $s_2 = 68$)					
		monthly per capita expenditure classes in rupees					
items		24-28			28-34		
		s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)		(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains		5.59	6.54	6.03	6.52	4.30	5.22
2. milk and milk products		3.38	4.46	3.88	1.79	4.92	3.63
3. edible oil		0.78	1.20	0.98	0.80	0.79	0.80
4. meat, egg and fish		0.94	0.07	0.53	0.27	0.04	0.14
5. sugar		0.78	1.37	1.06	1.88	1.20	1.48
6. salt		0.04	0.04	0.04	0.04	0.02	0.03
7. other food		3.98	2.77	3.42	3.72	2.90	3.22
(i) food total		15.49	16.45	15.94	15.02	14.17	14.52
8. clothing		2.76	3.46	3.09	4.60	9.66	7.58
9. fuel and light		1.56	1.36	1.47	1.78	0.85	1.23
10. rent		0.90	0.13	0.54	0.00	0.00	0.00
11. taxes		0.00	0.32	0.15	0.00	0.02	0.01
12. miscellaneous		6.01	3.89	5.01	10.10	5.59	7.45
(ii) non-food total		11.23	9.16	10.26	16.48	16.12	16.27
(iii) total		26.72	25.61	26.20	31.50	30.29	30.79
(iv) number of sample households		5	4	9	3	3	6
(v) average household size		5.28	5.53	5.39	2.83	5.20	3.86

monthly per capita expenditure classes in rupees												
srl. no.	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
							14.25	5.50	7.00	4.40	4.45	4.43
1.	11.83	—	11.83	—	—	—	12.75	2.94	4.62	1.25	1.91	1.59
2.	2.33	—	2.33	—	—	—	4.75	1.00	1.64	0.48	0.46	0.47
3.	1.56	—	1.56	—	—	—	6.00	3.75	4.14	0.31	0.13	0.22
4.	1.41	—	1.41	—	—	—	4.57	1.75	2.23	0.60	0.68	0.64
5.	1.12	—	1.12	—	—	—	0.25	0.06	0.09	0.04	0.04	0.04
6.	0.04	—	0.04	—	—	—	4.69	7.37	6.91	1.73	1.71	1.72
7.	3.49	—	3.49	—	—	—						
							47.26	22.37	26.63	8.81	9.38	9.11
(i)	21.78	—	21.78	—	—	—						
								1.12	0.93	1.07	1.10	1.09
8.	11.49	—	11.49	—	—	—	3.49	4.68	4.48	1.15	0.94	1.04
9.	1.46	—	1.46	—	—	—	0.00	10.00	8.29	0.12	0.09	0.10
10.	0.46	—	0.46	—	—	—	0.00	0.00	0.00	0.00	0.03	0.02
11.	0.00	—	0.00	—	—	—	13.70	32.78	29.50	1.92	1.87	1.89
12.	3.09	—	3.09	—	—	—						
							17.19	48.58	43.20	4.26	4.03	4.14
(ii)	16.50	—	16.50	—	—	—	64.45	70.95	69.83	13.07	13.41	13.25
(iii)	38.28	—	38.28	—	—	—						
							1	1	2	68	68	136
(iv)	3	—	3	—	—	—						
							1.00	1.00	1.00	5.28	5.88	5.58
(v)	3.22	—	3.22	—	—	—						

SANKHYĀ: THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.65) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN RURAL AREAS: CENTRAL INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116$, $s_2 = 116$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.10	3.12	3.11	4.99	4.72	4.84	5.07	6.00	5.63
2. milk and milk products	0.30	0.18	0.24	0.32	0.29	0.30	0.46	0.82	0.68
3. edible oil	0.23	0.13	0.18	0.28	0.25	0.26	0.35	0.26	0.29
4. meat, egg and fish	0.14	0.05	0.10	0.11	0.19	0.15	0.34	0.16	0.23
5. sugar	0.11	0.04	0.08	0.20	0.27	0.24	0.14	0.22	0.19
6. salt	0.04	0.04	0.04	0.06	0.07	0.07	0.07	0.06	0.06
7. other food	0.99	0.66	0.83	1.24	1.03	1.13	1.61	1.46	1.53
(i) food total	4.91	4.22	4.58	7.20	6.82	6.99	8.04	8.98	8.61
8. clothing	0.19	0.29	0.24	0.60	1.08	0.86	1.41	0.90	1.10
9. fuel and light	0.62	0.59	0.61	0.86	0.86	0.86	0.98	1.18	1.10
10. rent	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	0.51	0.36	0.44	0.98	0.74	0.86	1.82	0.81	1.22
(ii) non-food total	1.32	1.24	1.29	2.44	2.70	2.59	4.21	2.89	3.42
(iii) total	6.23	5.46	5.87	9.64	9.52	9.58	12.25	11.87	12.03
(iv) number of sample households	41	40	81	22	25	47	11	11	22
(v) average household size	5.36	5.26	5.31	4.74	4.90	4.83	4.26	5.10	4.73

serl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	4.81	4.80	4.80	6.16	5.09	5.48	6.54	8.06	7.16	5.38	7.42	6.62
2.	1.48	1.25	1.35	1.01	1.24	1.16	2.48	1.63	2.13	0.43	1.96	1.36
3.	0.38	0.42	0.40	0.50	0.55	0.53	0.46	0.31	0.40	0.75	0.76	0.75
4.	0.16	0.22	0.19	0.15	0.04	0.08	0.05	0.00	0.03	0.68	0.08	0.32
5.	0.24	0.44	0.36	0.40	0.47	0.44	0.54	0.40	0.49	0.77	0.39	0.54
6.	0.04	0.06	0.05	0.07	0.03	0.04	0.05	0.03	0.04	0.10	0.11	0.10
7.	1.58	1.74	1.67	2.41	1.70	1.97	1.99	1.99	1.99	3.64	2.40	2.89
(i)	8.69	8.93	8.82	10.70	9.12	9.70	12.11	12.42	12.24	11.75	13.12	12.58
8.	2.16	1.26	1.65	2.97	1.41	1.97	3.15	3.83	3.43	2.91	2.60	2.72
9.	0.96	1.36	1.19	1.58	2.14	1.94	1.18	0.93	1.08	1.78	1.38	1.54
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.04
11.	0.10	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.	2.01	2.32	2.18	1.30	3.90	2.96	2.68	2.96	2.79	6.02	5.09	5.46
(ii)	5.23	4.94	5.06	5.85	7.45	6.87	7.01	7.72	7.30	10.81	9.07	9.76
(iii)	13.92	13.87	13.88	16.55	16.57	16.57	19.12	20.14	19.54	22.56	22.19	22.34
(iv)	7	10	17	6	10	16	9	2	11	5	7	12
(v)	4.40	5.37	4.90	3.88	3.92	3.90	3.80	9.70	5.05	2.68	3.00	2.86

CONSUMER EXPENDITURE

TABLE (1.65) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: CENTRAL INDIA

reference period : month number of sample villages : 232 ($s_1 = 116$, $s_2 = 116$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	7.14	6.77	6.95	7.30	6.59	7.03
2. milk and milk products	2.15	6.82	4.55	1.64	4.16	2.60
3. edible oil	0.80	0.48	0.63	1.16	0.48	0.90
4. meat, egg and fish	2.20	0.20	1.18	0.26	0.30	0.28
5. sugar	0.81	1.40	1.12	0.53	1.02	0.72
6. salt	0.09	0.09	0.09	0.08	0.07	0.08
7. other food	3.38	3.07	3.21	3.73	3.31	3.56
(i) food total	16.57	18.83	17.73	14.70	15.93	15.17
8. clothing	4.65	0.84	2.69	4.23	6.54	5.10
9. fuel and light	1.13	2.39	1.78	1.34	1.76	1.50
10. rent	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.34	0.13
12. miscellaneous	4.12	3.86	3.99	8.83	6.48	7.95
(ii) non-food total	9.90	7.09	8.46	14.40	15.12	14.68
(iii) total	26.47	25.92	26.19	29.10	31.05	29.85
(iv) number of sample households	4	4	8	5	3	8
(v) average household size	3.38	3.33	3.35	5.13	4.24	4.76

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	7.22	2.73	3.91	12.75	7.31	7.08	5.33	17.38	7.79	4.45	4.54	4.50
2.	3.78	4.85	4.56	9.44	0.59	1.85	3.60	0.06	2.86	0.75	0.95	0.85
3.	1.26	0.90	1.00	0.75	0.62	0.64	0.35	1.06	0.50	0.36	0.30	0.33
4.	0.00	0.98	0.72	0.00	0.62	0.54	0.51	1.62	0.73	0.20	0.16	0.18
5.	1.10	1.45	1.36	0.12	2.06	1.79	0.19	0.38	0.23	0.24	0.33	0.29
6.	0.10	0.03	0.05	0.12	0.19	0.18	0.18	0.25	0.19	0.05	0.06	0.05
7.	2.86	3.49	3.32	7.99	3.11	3.78	4.49	2.82	4.16	1.53	1.34	1.43
(i)	16.32	14.43	14.92	31.17	14.50	16.86	14.65	23.51	16.46	7.58	7.68	7.63
8.	6.52	3.70	4.44	0.00	0.00	0.00	5.48	9.13	6.22	1.23	1.19	1.21
9.	3.17	1.24	1.75	2.75	0.84	1.11	0.76	3.50	1.32	0.90	1.00	0.95
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.47	—	0.37	0.01	0.00	0.01
11.	0.00	0.00	0.00	0.50	0.00	0.07	0.00	0.00	0.00	0.01	0.01	0.01
12.	10.79	17.94	16.06	17.57	30.98	29.08	38.94	19.55	34.99	2.03	2.88	2.47
(ii)	20.48	22.88	22.25	20.82	31.82	30.26	45.65	32.18	42.90	4.18	5.08	4.65
(iii)	36.80	37.31	37.17	51.99	46.32	47.12	60.30	55.69	59.36	11.76	12.76	12.28
(iv)	3	2	5	1	1	2	2	1	3	116	116	232
(v)	3.55	15.32	8.18	1.00	8.00	4.02	3.08	1.00	2.16	4.62	5.07	4.85

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.66) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH-WEST INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116, s_2 = 116$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	2.51	3.18	2.87	4.40	4.64	4.50	4.89	4.11	4.61
2. milk and milk products	0.32	0.38	0.35	1.55	1.30	1.45	2.05	1.77	1.95
3. edible oil	0.04	0.04	0.04	0.29	0.23	0.26	0.38	0.26	0.34
4. meat, egg and fish	0.01	0.02	0.02	0.03	0.03	0.03	0.07	0.25	0.13
5. sugar	0.10	0.12	0.11	0.45	0.29	0.38	0.67	0.88	0.75
6. salt	0.04	0.04	0.04	0.04	0.05	0.05	0.06	0.08	0.07
7. other food	0.45	0.29	0.36	0.59	0.91	0.72	1.11	1.22	1.15
(i) food total	3.47	4.07	3.79	7.35	7.45	7.39	9.23	8.57	9.00
8. clothing	0.31	0.18	0.24	0.69	0.89	0.77	1.35	1.16	1.28
9. fuel and light	0.97	0.31	0.61	0.87	0.70	0.80	0.97	1.31	1.09
10. rent	—	—	—	—	—	—	—	—	—
11. taxes	—	—	—	—	—	—	—	—	—
12. miscellaneous	0.79	0.25	0.49	0.88	0.66	0.79	0.81	1.40	1.02
(ii) non-food total	2.07	0.74	1.34	2.44	2.25	2.36	3.13	3.87	3.39
(iii) total	5.54	4.81	5.13	9.79	9.70	9.75	12.36	12.44	12.39
(iv) number of sample households	16	14	30	19	14	33	9	7	16
(v) average household size	6.15	6.30	6.23	6.36	6.99	6.60	4.43	4.49	4.45

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.33	4.86	5.14	5.90	5.71	5.82	6.27	5.59	5.97	5.83	7.27	6.93
2.	3.65	3.29	3.51	3.26	3.12	3.20	5.93	2.46	4.38	5.25	6.09	5.89
3.	0.13	0.30	0.20	0.22	0.33	0.27	0.41	0.35	0.38	0.21	0.46	0.40
4.	0.18	0.14	0.16	0.05	0.52	0.26	0.07	0.15	0.10	0.16	0.08	0.10
5.	0.42	0.82	0.58	0.69	0.88	0.77	0.78	0.66	0.73	1.65	0.93	1.10
6.	0.07	0.05	0.06	0.05	0.07	0.06	0.06	0.04	0.05	0.04	0.05	0.05
7.	1.24	1.75	1.44	1.44	1.33	1.39	1.54	1.70	1.61	1.74	1.91	1.87
(i)	11.02	11.21	11.09	11.61	11.96	11.77	15.06	10.95	13.22	14.88	16.79	16.34
8.	0.82	0.55	0.71	1.31	1.39	1.34	1.39	1.91	1.62	2.46	0.94	1.30
9.	0.70	0.33	0.55	0.61	1.14	0.84	1.27	1.12	1.20	1.85	1.55	1.62
10.	—	—	—	—	—	—	—	—	—	—	—	—
11.	—	0.02	0.01	0.05	—	0.03	—	0.00	0.00	0.00	0.12	0.09
12.	1.22	2.16	1.59	1.80	1.81	1.81	2.44	5.31	3.73	2.61	3.35	3.18
(ii)	2.74	3.06	2.86	3.77	4.34	4.02	5.10	8.34	6.55	6.92	5.96	6.19
(iii)	13.76	14.27	13.95	15.38	16.30	15.79	20.16	19.29	19.77	21.80	22.75	22.53
(iv)	14	7	21	15	13	28	9	14	23	8	16	24
(v)	5.67	7.33	6.22	7.63	5.97	6.81	4.68	3.69	4.18	6.63	4.41	4.78

CONSUMER EXPENDITURE

TABLE (1.66) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: NORTH-WEST INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116$, $s_2 = 116$)

items	monthly per capita expenditure in classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	7.19	6.34	6.76	6.01	6.53	6.40
2. milk and milk products	6.66	5.14	5.88	2.77	3.33	3.20
3. edible oil	0.71	0.33	0.52	0.61	0.28	0.36
4. meat, egg and fish	0.28	0.20	0.24	0.97	1.14	1.10
5. sugar	1.13	1.77	1.46	1.92	1.73	1.77
6. salt	0.09	0.04	0.07	0.09	0.08	0.08
7. other food	2.08	2.13	2.11	3.10	2.95	2.99
(i) food total	18.14	15.95	17.04	15.47	16.04	15.90
8. clothing	1.18	3.48	2.36	7.67	2.18	3.53
9. fuel and light	1.20	1.06	1.13	1.96	1.14	1.34
10. rent	—	—	—	—	—	—
11. taxes	—	—	—	—	—	—
12. miscellaneous	5.10	5.19	5.15	5.98	11.64	10.24
(ii) non-food total	7.48	9.73	8.64	15.61	14.96	15.11
(iii) total	25.62	25.68	25.68	31.08	31.00	31.01
(iv) number of sample households	10	8	18	6	9	15
(v) average household size	3.89	5.61	4.61	3.54	9.81	6.83

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	6.53	7.21	6.90	6.89	7.37	7.17	6.06	13.20	7.63	5.02	5.35	5.19
2.	5.32	9.53	7.60	12.41	12.89	12.69	7.43	20.12	10.21	3.21	3.30	3.26
3.	0.10	0.64	0.39	0.47	0.67	0.59	0.28	2.52	0.77	0.27	0.29	0.28
4.	0.62	0.08	0.33	0.07	0.40	0.26	0.65	2.61	1.08	0.13	0.25	0.19
5.	2.04	1.53	1.76	3.45	2.61	2.96	0.88	3.76	1.51	0.73	0.85	0.79
6.	0.04	0.10	0.07	0.08	0.05	0.06	0.06	0.11	0.07	0.05	0.05	0.05
7.	2.86	3.70	3.32	2.90	6.21	4.82	4.73	10.06	5.90	1.29	1.64	1.47
(i)	17.51	22.79	20.37	26.27	30.20	28.55	20.09	52.38	27.17	10.70	11.73	11.23
8.	2.26	1.94	2.09	15.02	5.39	9.44	5.14	13.82	7.04	1.57	1.39	1.48
9.	1.98	1.42	1.68	2.25	2.47	2.37	1.72	2.82	1.96	1.06	0.95	1.00
10.	—	—	—	—	0.09	0.05	1.75	1.30	1.65	0.02	0.01	0.02
11.	—	0.02	0.01	—	—	—	0.08	—	0.06	0.01	0.02	0.01
12.	13.19	12.44	12.78	2.39	7.85	5.55	35.04	23.87	32.58	2.63	3.64	3.14
(ii)	17.43	15.82	16.56	19.66	15.80	17.41	43.73	41.81	43.29	5.29	6.01	5.65
(iii)	34.94	38.61	36.93	45.93	46.00	45.96	63.82	94.19	70.46	15.99	17.74	16.88
(iv)	3	6	9	3	5	8	4	3	7	116	116	232
(v)	10.49	4.86	6.45	5.13	4.94	5.02	1.89	1.15	1.66	5.54	5.63	5.59

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.70) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPEN-
DITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN RURAL AREAS : ALL INDIA

reference period : month

number of sample villages : 1624 ($s_1 = 812$, $s_2 = 812$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	53.27	56.74	54.91	51.15	50.42	50.73	47.79	48.75	48.25
2. milk and milk products	3.95	2.77	3.44	5.66	5.47	5.57	5.90	8.22	6.98
3. edible oil	2.92	2.60	2.75	2.94	2.74	2.84	3.41	2.91	3.16
4. meat, egg and fish	1.89	1.73	1.89	1.89	2.63	2.31	2.91	2.57	2.74
5. sugar	1.37	1.38	1.38	2.41	2.42	2.42	2.33	2.49	2.41
6. salt	0.69	0.69	0.69	0.52	0.53	0.53	0.50	0.42	0.50
7. other food	13.06	12.46	12.74	12.16	12.21	12.18	12.22	11.88	12.04
(i) food total	77.15	78.37	77.80	76.73	76.42	76.58	75.06	77.24	76.08
8. clothing	2.92	5.36	4.13	4.82	6.42	5.67	6.32	4.90	5.65
9. fuel and light	11.34	8.66	9.98	9.23	8.53	8.82	8.65	8.47	8.55
10. rent	—	0.00	0.00	0.21	0.00	0.11	0.00	—	0.00
11. taxes	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
12. miscellaneous	8.59	7.61	8.09	9.01	8.63	8.82	9.97	9.39	9.72
(ii) non-food total	22.85	21.63	22.20	23.27	23.58	23.42	24.94	22.76	23.92
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	169	159	328	133	151	284	91	85	176
(v) average household size	5.53	5.65	5.59	5.34	5.84	5.60	5.08	5.12	5.11

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	44.75	43.43	44.12	38.39	39.23	38.79	35.42	36.98	36.16	31.65	36.33	34.41
2.	9.01	7.58	8.31	10.97	7.24	9.20	12.75	9.01	10.81	8.42	13.10	11.16
3.	2.77	3.32	3.01	2.44	2.92	2.68	2.39	3.31	2.90	2.97	2.91	2.95
4.	2.91	2.74	2.79	3.53	2.80	3.17	2.95	2.85	2.90	4.35	2.60	3.30
5.	2.41	2.89	2.65	3.35	3.59	3.47	2.90	3.21	3.05	3.72	2.69	3.12
6.	0.43	0.43	0.43	0.37	0.36	0.37	0.36	0.36	0.36	0.31	0.31	0.31
7.	11.34	12.84	12.11	12.49	12.29	12.42	10.78	12.90	11.90	12.99	12.60	12.76
(i)	73.62	73.23	73.42	71.54	68.43	70.10	67.55	68.62	68.08	64.41	70.54	68.01
8.	7.87	6.21	7.02	10.36	7.97	9.20	10.21	10.56	10.40	8.91	7.80	8.26
9.	7.09	7.07	7.09	5.97	8.15	7.00	5.86	5.44	5.64	6.25	5.61	5.89
10.	—	—	—	0.12	—	0.06	0.00	0.05	0.05	0.09	0.09	0.09
11.	0.21	0.07	0.14	0.06	0.06	0.06	0.16	0.00	0.10	0.13	0.18	0.13
12.	11.21	13.42	12.33	11.95	15.39	13.58	16.22	15.33	15.73	20.21	15.78	17.62
(ii)	26.38	26.77	26.58	28.46	31.57	29.90	32.45	31.38	31.92	35.59	29.46	31.99
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	68	73	141	85	73	158	70	76	146	50	66	116
(v)	5.47	5.62	5.55	5.45	4.79	5.12	4.52	4.93	4.73	4.91	4.67	4.77

CONSUMER EXPENDITURE

TABLE (1.70) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: ALL INDIA

reference period : month

number of sample villages : 1624 ($s_1 = 812$, $s_2 = 812$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	31.41	31.56	31.49	31.79	25.34	29.14
2. milk and milk products	11.11	12.25	11.64	8.95	10.55	9.60
3. edible oil	2.85	2.54	2.70	2.87	1.58	2.34
4. meat, egg and fish	5.08	2.38	3.75	3.60	3.16	3.43
5. sugar	2.78	3.90	3.32	2.81	3.89	3.23
6. salt	0.31	0.23	0.27	0.23	0.23	0.23
7. other food	11.77	12.06	11.91	10.54	10.41	10.49
(i) food total	65.31	64.92	65.08	60.79	55.16	58.46
8. clothing	10.44	9.91	10.20	12.65	14.60	13.47
9. fuel and light	5.12	6.48	5.78	5.12	4.45	4.85
10. rent	0.63	0.70	0.66	—	—	—
11. taxes	0.04	0.51	0.27	0.20	0.13	0.16
12. miscellaneous	18.46	17.48	18.01	21.24	25.66	23.06
(ii) non-food total	34.69	35.08	34.92	39.21	44.84	41.54
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	44	42	86	42	32	74
(v) average household size	4.69	4.80	4.74	5.03	5.22	5.10

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	25.71	18.78	21.81	20.38	17.25	18.46	17.00	15.00	16.00	37.92	37.32	37.57
2.	10.33	12.68	11.67	9.72	12.13	11.21	5.41	5.05	5.24	8.43	8.61	8.49
3.	2.56	3.14	2.89	1.67	1.92	1.81	1.59	2.68	2.13	2.66	2.74	2.70
4.	1.82	2.32	2.09	2.34	3.01	2.74	3.44	4.20	3.83	3.12	2.61	2.89
5.	3.07	3.14	3.10	2.51	3.66	3.22	1.41	1.42	1.41	2.59	2.80	2.70
6.	0.19	0.21	0.19	0.22	0.17	0.17	0.16	0.18	0.17	0.40	0.39	0.39
7.	11.20	10.76	10.94	8.25	11.11	10.02	8.58	8.45	8.52	11.55	11.87	11.71
(i)	54.88	51.03	52.69	45.09	49.25	47.63	37.59	36.98	37.30	66.67	66.34	66.45
8.	12.95	11.81	12.31	18.01	10.31	13.30	6.36	7.81	7.08	8.63	8.35	8.49
9.	6.04	4.72	5.30	4.05	4.84	4.53	2.16	2.86	2.50	6.71	6.52	6.64
10.	0.49	—	0.21	—	0.30	0.17	0.40	6.89	3.64	0.13	0.59	0.33
11.	0.11	0.08	0.08	0.04	0.47	0.30	0.16	—	0.09	0.07	0.13	0.13
12.	25.53	32.36	29.41	32.81	34.83	34.07	53.33	45.46	49.39	17.79	18.07	17.96
(ii)	45.12	48.97	47.31	54.91	50.75	52.37	62.41	63.02	62.70	33.33	33.66	33.55
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	22	24	46	12	14	26	22	13	35	808	808	1616
(v)	3.52	4.48	4.00	3.43	5.92	4.62	3.13	3.76	3.41	5.09	5.28	5.18

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.71) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH INDIA

reference period : month

number of sample villages : 280 ($s_1 = 140, s_2 = 140$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	51.90	58.03	55.46	50.70	51.24	50.92	45.32	49.09	46.93
2. milk and milk products	4.91	0.68	2.48	5.14	5.12	5.18	9.50	8.49	9.08
3. edible oil	3.48	2.73	2.98	3.53	2.97	3.25	2.75	3.00	2.83
4. meat, egg and fish	0.79	0.85	0.83	1.11	0.72	0.91	0.42	0.75	0.50
5. sugar	1.58	1.54	1.49	3.02	2.66	2.85	2.42	2.41	2.42
6. salt	0.47	0.51	0.50	0.40	0.51	0.41	0.33	0.33	0.33
7. other food	13.61	14.16	14.07	14.42	14.75	14.63	12.75	13.06	12.92
(i) food total	76.74	78.50	77.81	78.32	77.97	78.15	73.49	77.13	75.01
8. clothing	3.80	6.48	5.30	6.25	8.20	7.11	6.17	5.82	6.08
9. fuel and light	10.60	8.02	9.11	8.37	8.81	8.54	7.92	7.65	7.83
10. rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	8.76	7.00	7.78	7.06	5.02	6.20	12.42	9.40	11.08
(ii) non-food total	23.26	21.50	22.19	21.68	22.03	21.85	26.51	22.87	24.99
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	20	29	49	26	26	52	20	13	33
(v) average household size	5.53	5.79	5.68	6.06	5.30	5.68	5.88	6.10	5.97

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	43.46	36.33	39.49	31.77	40.85	34.87	28.11	34.36	31.23	29.62	32.09	30.72
2.	11.91	10.44	11.14	14.48	5.39	11.38	16.94	9.10	13.06	8.96	16.68	12.35
3.	3.22	3.92	3.57	3.16	2.91	3.06	2.86	4.26	3.57	2.56	2.32	2.46
4.	0.84	2.32	1.71	2.56	1.03	2.04	2.06	2.55	2.31	2.47	1.14	1.88
5.	3.43	3.12	3.29	5.24	6.73	5.75	3.60	4.04	3.83	4.41	3.60	4.07
6.	0.28	0.36	0.36	0.24	0.18	0.24	0.32	0.26	0.26	0.26	0.18	0.22
7.	8.76	13.71	11.36	11.56	9.70	10.90	11.65	14.35	12.96	10.37	13.86	11.91
(i)	71.90	70.20	70.92	69.01	66.79	68.24	65.54	68.92	67.22	58.65	69.87	63.61
8.	8.69	7.90	8.29	10.49	9.03	10.01	12.12	10.71	11.44	12.75	9.89	11.50
9.	6.73	7.69	7.29	7.75	7.03	7.49	4.92	5.51	5.19	5.12	6.70	5.82
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.10	0.10	0.00	0.00	0.00
11.	0.07	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.21	0.53	0.00	0.31
12.	12.61	14.21	13.50	12.75	17.15	14.26	16.89	14.76	15.84	22.95	13.54	18.76
(ii)	28.10	29.80	29.08	30.99	33.21	31.76	34.46	31.08	32.78	41.35	30.13	36.39
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	12	16	28	16	10	26	14	18	32	12	9	21
(v)	5.06	5.82	5.46	5.11	4.36	4.83	6.05	4.58	5.23	4.79	4.85	4.82

CONSUMER EXPENDITURE

TABLE (1.71) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH INDIA

reference period : month		number of sample villages : 280 ($s_1 = 140, s_2 = 140$)					
		monthly per capita expenditure classes in rupees					
items		24-28			28-34		
		s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains		18.95	35.24	29.48	28.78	27.62	28.32
2. milk and milk products		15.14	9.05	11.19	15.41	12.14	14.11
3. edible oil		3.30	1.44	2.11	2.57	1.35	2.10
4. meat, egg and fish		0.79	1.90	1.53	3.80	2.63	3.33
5. sugar		3.93	3.30	3.52	2.97	4.05	3.39
6. salt		0.12	0.23	0.20	0.17	0.20	0.17
7. other food		12.87	13.90	13.50	9.14	11.43	10.08
(i) food total		55.10	65.06	61.53	62.84	59.42	61.50
8. clothing		22.30	5.67	11.55	13.83	11.10	12.78
9. fuel and light		3.73	8.35	6.73	6.96	4.86	6.12
10. rent		0.00	5.51	3.56	0.00	0.00	0.00
11. taxes		0.00	0.00	0.00	0.46	0.00	0.30
12. miscellaneous		18.87	15.41	16.63	15.91	24.62	19.30
(ii) non-food total		44.90	34.94	38.47	37.16	40.58	38.50
(iii) total		100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households		2	6	8	11	7	18
(v) average household size		5.45	3.86	4.31	4.10	4.12	4.11

monthly per capita expenditure classes in rupees												
srl. no.	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	15.95	22.56	19.68	19.51	14.94	15.24	17.79	27.81	22.17	36.24	38.36	37.24
2.	1.62	14.01	8.65	10.67	21.11	20.40	17.67	10.34	14.48	11.36	9.57	10.52
3.	1.85	3.18	2.61	2.11	0.87	0.96	2.05	1.48	1.79	2.94	2.82	2.85
4.	0.31	—	0.13	1.31	0.00	0.09	2.51	0.00	1.42	1.80	1.38	1.63
5.	1.09	3.21	2.30	2.11	5.03	4.82	5.01	2.28	3.82	3.41	3.44	3.46
6.	0.18	0.26	0.23	0.13	0.07	0.09	0.19	0.06	0.12	0.27	0.28	0.27
7.	10.68	8.34	9.35	7.36	9.34	9.20	11.48	9.06	10.41	11.63	13.02	12.27
(i)	31.68	51.56	42.95	43.20	51.36	50.80	56.70	51.03	54.21	67.65	68.87	68.24
8.	27.20	18.51	22.27	2.11	13.29	12.51	9.04	12.90	10.73	10.23	9.23	9.77
9.	9.04	4.00	6.17	6.05	8.67	8.49	4.75	1.79	3.45	6.95	7.02	6.99
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.14
11.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.07
12.	32.08	25.93	28.61	48.64	26.68	28.20	29.51	34.28	31.61	14.97	14.60	14.79
(ii)	68.32	48.44	57.05	56.80	48.64	49.20	43.30	48.97	45.79	32.35	31.13	31.76
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	3	3	6	1	2	3	3	1	4	140	140	280
(v)	1.92	2.20	2.07	1.00	6.42	4.79	1.55	3.00	1.94	5.27	5.15	5.21

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (1.72) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : EAST INDIA

reference period : month

number of sample villages : 416 ($s_1 = 208$, $s_2 = 208$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	62.28	59.34	60.66	59.25	61.51	60.55	60.55	54.10	57.02
2. milk and milk products	0.55	0.82	0.69	3.00	1.56	2.18	1.33	4.65	3.15
3. edible oil	2.20	2.30	2.25	2.28	2.29	2.28	2.74	3.07	2.90
4. meat, egg and fish	2.01	2.62	2.25	3.72	3.55	3.63	3.90	4.90	4.40
5. sugar	0.18	0.66	0.35	0.62	1.15	0.93	0.66	1.58	1.16
6. salt	1.10	0.82	1.04	0.62	0.63	0.62	0.50	0.50	0.50
7. other food	12.45	11.15	11.96	9.31	10.64	10.08	9.30	9.79	9.63
(i) food total	80.77	77.71	79.20	78.80	81.33	80.27	78.98	78.59	78.76
8. clothing	1.47	4.59	3.12	4.65	5.01	4.88	5.07	4.90	4.98
9. fuel and light	10.07	8.36	9.19	8.38	7.51	7.89	8.47	7.88	8.13
10. rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.10	0.00	0.00	0.17	0.00	0.08
12. miscellaneous	7.69	9.34	8.49	8.07	6.15	6.96	7.31	8.63	8.05
(ii) non-food total	19.23	22.29	20.80	21.20	18.67	19.73	21.02	21.41	21.24
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	31	31	62	27	35	62	23	25	48
(v) average household size	5.59	5.32	5.45	5.16	5.76	5.49	4.69	5.50	5.10

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	56.30	55.20	55.74	46.40	51.21	48.16	46.80	43.23	44.98	39.20	41.70	40.73
2.	2.60	2.43	2.55	7.20	1.38	5.09	5.32	5.91	5.64	7.15	8.41	7.91
3.	2.88	3.36	3.12	2.24	3.32	2.57	1.89	3.29	2.59	2.40	3.07	2.80
4.	3.09	2.93	3.05	7.56	3.82	6.19	4.35	4.70	4.55	7.42	4.05	5.34
5.	1.12	1.29	1.21	1.27	1.38	1.29	2.10	2.51	2.28	2.22	2.05	2.13
6.	0.56	0.50	0.57	0.54	0.50	0.49	0.41	0.63	0.52	0.36	0.40	0.36
7.	10.05	11.17	10.50	10.53	12.40	11.33	9.10	14.69	11.94	13.01	12.73	12.89
(i)	76.60	76.88	76.74	75.74	74.01	75.13	69.97	74.96	72.50	71.76	72.41	72.16
8.	5.55	6.44	6.03	6.72	5.45	6.25	10.84	6.95	8.89	6.08	8.10	7.34
9.	7.59	6.44	7.02	5.32	6.89	5.88	5.83	5.44	5.64	4.80	4.63	4.67
10.	0.00	0.00	0.00	0.24	0.00	0.12	0.00	0.10	0.05	0.18	0.18	0.18
11.	0.00	0.00	0.00	0.06	0.19	0.12	0.00	0.05	0.05	0.00	0.04	0.04
12.	10.26	10.24	10.21	11.92	13.46	12.50	13.36	12.50	12.87	17.18	14.64	15.61
(ii)	23.40	23.12	23.26	24.26	25.99	24.87	30.03	25.04	27.50	28.24	27.59	27.84
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	19	23	42	24	16	40	18	20	38	13	18	31
(v)	6.02	5.12	5.53	4.66	3.88	4.33	5.02	5.13	5.07	6.22	6.15	6.18

CONSUMER EXPENDITURE

TABLE (1.72) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: EAST INDIA

reference period : month

number of sample villages : 416 ($s_1 = 208, s_2 = 208$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	40.05	38.04	39.19	37.62	36.95	37.46
2. milk and milk products	6.63	7.53	7.01	7.18	5.96	6.93
3. edible oil	2.60	2.86	2.69	2.85	2.31	2.75
4. meat, egg and fish	7.59	3.49	5.82	4.52	5.96	4.81
5. sugar	2.28	2.35	2.30	2.16	1.69	2.06
6. salt	0.32	0.35	0.32	0.26	0.33	0.29
7. other food	11.18	12.71	11.89	9.96	9.21	9.81
(i) food total	70.65	67.33	69.22	64.55	62.41	64.11
8. clothing	9.54	8.98	9.31	8.85	20.25	11.12
9. fuel and light	4.87	7.06	5.82	3.83	5.14	4.09
10. rent	0.12	0.04	0.08	0.00	0.00	0.00
11. taxes	0.00	0.82	0.36	0.13	0.03	0.10
12. miscellaneous	14.82	15.77	15.21	22.64	12.17	20.58
(ii) non-food total	29.35	32.67	30.78	35.45	37.59	35.89
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	19	15	34	11	6	17
(v) average household size	4.78	4.40	4.61	7.50	5.00	6.82

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	30.50	32.68	31.45	31.66	17.46	22.87	22.58	18.55	20.59	43.11	42.58	42.88
2.	10.41	7.40	9.10	1.55	4.71	3.51	2.68	4.94	3.78	4.99	4.94	4.97
3.	2.68	5.15	3.74	2.28	2.23	2.26	1.74	4.11	2.91	2.41	3.14	2.77
4.	1.89	4.72	3.11	2.23	5.86	4.47	4.17	5.52	4.83	4.83	4.25	4.52
5.	2.41	2.60	2.49	1.39	2.28	1.94	0.88	1.55	1.21	1.54	1.75	1.64
6.	0.19	0.35	0.27	0.31	0.12	0.19	0.17	0.25	0.21	0.44	0.47	0.45
7.	13.60	12.25	13.02	12.02	10.17	10.88	7.82	9.26	8.54	10.37	11.46	10.90
(i)	61.68	65.15	63.18	51.44	42.83	46.12	40.04	44.18	42.07	67.69	68.59	68.13
8.	7.52	10.27	8.72	20.62	12.52	15.62	4.33	9.50	6.87	7.19	7.91	7.57
9.	5.60	7.51	6.42	4.42	3.12	3.61	1.33	3.03	2.18	5.43	5.93	5.65
10.	0.87	0.00	0.49	0.00	0.00	0.00	0.20	2.33	1.25	0.11	0.35	0.23
11.	0.19	0.24	0.22	0.00	0.00	0.00	0.19	0.00	0.09	0.05	0.12	0.11
12.	24.14	16.83	20.97	23.52	41.53	34.65	53.91	40.96	47.54	19.53	17.10	18.31
(ii)	38.32	34.85	36.82	48.56	57.17	53.88	59.96	55.82	57.93	32.31	31.41	31.87
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	8	8	16	4	3	7	7	4	11	204	204	408
(v)	3.23	2.86	3.06	2.56	7.88	4.29	3.93	5.41	4.56	5.13	5.20	5.17

TABLE (1.73) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : SOUTH INDIA

reference period : month

number of sample villages : 328 ($s_1 = 164$, $s_2 = 164$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	55.21	55.47	55.31	56.99	48.55	51.74	45.78	49.50	47.21
2. milk and milk products	1.49	1.79	1.59	1.98	4.18	3.35	3.81	4.97	4.23
3. edible oil	2.97	3.26	3.00	2.64	2.79	2.71	3.81	2.65	3.31
4. meat, egg and fish	2.97	4.08	3.36	3.52	5.36	4.65	4.98	3.06	4.23
5. sugar	0.74	0.98	0.88	0.44	1.18	0.97	2.07	1.08	1.66
6. salt	0.74	0.65	0.71	0.55	0.54	0.54	0.58	0.41	0.50
7. other food	11.90	12.24	12.19	12.76	12.75	12.66	14.51	13.99	14.41
(i) food total	76.02	78.47	77.04	78.88	75.35	76.62	75.54	75.66	75.55
8. clothing	3.35	4.24	3.71	0.33	4.72	3.14	6.38	3.06	5.14
9. fuel and light	11.52	7.83	9.89	10.56	8.68	9.42	8.54	8.03	8.37
10. rent	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	9.11	9.30	9.36	10.23	11.25	10.82	9.54	13.25	10.94
(ii) non-food total	23.98	21.53	22.96	21.12	24.65	23.38	24.46	24.34	24.45
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	44	29	73	25	35	60	21	18	39
(v) average household size	5.60	5.59	5.59	3.93	5.74	4.89	4.93	4.33	4.68

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	37.00	42.62	40.18	37.50	38.39	37.98	33.57	34.03	33.81	29.31	35.31	32.90
2.	7.23	5.80	6.43	5.66	3.62	4.52	4.73	8.66	6.86	4.96	6.61	5.96
3.	2.62	3.30	2.96	2.11	2.96	2.59	2.74	3.45	3.12	5.49	4.00	4.60
4.	5.24	4.40	4.77	3.37	3.68	3.56	5.68	4.48	4.99	5.40	4.78	5.05
5.	2.20	2.71	2.46	2.35	2.11	2.23	2.31	1.44	1.87	1.85	1.75	1.76
6.	0.35	0.37	0.36	0.30	0.42	0.36	0.37	0.41	0.36	0.26	0.28	0.27
7.	17.01	15.19	16.04	16.44	14.42	15.31	14.57	12.47	13.47	19.42	16.31	17.55
(i)	71.65	74.39	73.20	67.73	65.60	66.55	63.97	64.94	64.48	66.69	69.04	68.09
8.	8.15	3.96	5.85	14.39	9.23	11.51	4.84	11.03	8.27	4.13	9.65	7.40
9.	7.94	7.19	7.51	5.42	8.69	7.23	6.42	5.77	6.08	8.48	5.28	6.59
10.	0.00	0.00	0.00	0.18	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
11.	0.78	0.15	0.43	0.00	0.00	0.00	0.26	0.00	0.10	0.04	0.00	0.00
12.	11.48	14.31	13.01	12.28	16.48	14.65	24.51	18.26	21.07	20.66	16.03	17.92
(ii)	28.35	25.61	26.80	32.27	34.40	33.45	36.03	35.06	35.52	33.31	30.96	31.91
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	10	15	25	20	21	41	15	15	30	9	11	20
(v)	5.93	6.07	6.01	6.29	5.46	5.80	3.43	4.63	3.99	4.23	3.82	3.97

CONSUMER EXPENDITURE

TABLE (1.73) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGES TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: SOUTH INDIA

reference period : month

number of sample villages : 328 ($s_1 = 164, s_2 = 164$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	24.74	28.63	26.89	37.35	33.11	35.65
2. milk and milk products	3.34	5.83	4.74	6.74	4.58	5.88
3. edible oil	3.97	1.98	2.87	3.16	2.03	2.74
4. meat, egg and fish	3.69	4.82	4.31	4.25	4.13	4.21
5. sugar	1.28	2.37	1.86	2.01	2.00	2.02
6. salt	0.31	0.19	0.23	0.17	0.28	0.21
7. other food	14.07	15.38	14.84	12.76	13.09	12.89
(i) food total	51.40	59.20	55.74	66.44	59.22	63.60
8. clothing	13.84	9.87	11.62	13.07	12.81	12.96
9. fuel and light	7.15	6.49	6.76	5.14	5.61	5.33
10. rent	0.00	0.12	0.08	0.00	0.00	0.00
11. taxes	0.23	0.00	0.08	0.24	0.00	0.14
12. miscellaneous	27.38	24.32	25.72	15.11	22.36	17.97
(ii) non-food total	48.60	40.80	44.26	33.56	40.78	36.40
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(vi) number of sample households	4	5	9	6	4	10
(v) average household size	5.73	6.88	6.32	4.72	3.49	4.14

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	30.11	18.28	20.76	14.55	22.58	17.60	8.02	6.58	7.25	36.80	36.40	36.60
2.	15.47	6.89	8.68	5.74	4.25	5.17	4.70	3.33	3.97	4.60	4.98	4.80
3.	3.96	3.25	3.39	1.55	3.67	2.35	1.55	0.73	1.11	2.88	2.89	2.88
4.	3.15	1.95	2.19	3.85	5.33	4.41	3.48	3.25	3.36	4.10	4.13	4.11
5.	2.26	1.92	1.98	0.90	1.55	1.15	1.56	0.68	1.08	1.65	1.64	1.64
6.	0.28	0.15	0.18	0.17	0.27	0.20	0.11	0.07	0.09	0.36	0.39	0.41
7.	16.73	13.18	13.92	5.84	15.89	9.71	10.29	7.66	8.89	14.02	13.44	13.71
(i)	71.96	45.62	51.10	32.60	53.54	40.59	29.71	22.30	25.75	64.41	63.87	64.15
8.	2.62	19.84	16.25	10.83	8.50	9.93	9.29	4.58	6.77	7.84	7.93	7.88
9.	5.21	4.86	4.93	3.05	4.87	3.74	3.26	2.05	2.62	7.19	6.69	6.92
10.	0.00	0.00	0.00	0.00	1.59	0.61	0.00	0.23	0.11	0.00	0.07	0.07
11.	0.47	0.00	0.10	0.00	3.05	1.17	0.26	0.00	0.11	0.14	0.13	0.14
12.	19.74	29.68	27.62	53.52	28.45	43.96	57.48	70.84	64.64	20.42	21.31	20.84
(ii)	28.04	54.38	48.90	67.40	46.46	59.41	70.29	77.70	74.25	35.59	36.13	35.85
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	2	5	7	3	3	6	5	3	8	164	164	328
(v)	2.87	4.22	3.82	5.97	3.87	4.93	4.36	6.64	5.34	4.95	5.19	5.07

TABLE (1.74): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: WEST INDIA

reference period : month

number of sample villages : 136 ($s_1 = 68$, $s_2 = 68$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. foodgrains	52.30	44.20	48.09	40.86	38.02	39.32	38.92	35.59	37.14
2. milk and milk products	9.97	5.87	7.78	7.56	12.29	10.08	8.95	21.55	15.82
3. edible oil	2.94	4.02	3.49	3.07	3.15	3.11	6.53	3.63	4.99
4. meat, egg and fish	1.14	1.39	1.27	1.20	1.37	1.29	3.65	0.66	2.03
5. sugar	2.94	2.94	3.02	4.27	5.04	4.72	6.08	6.44	6.26
6. salt	0.49	0.46	0.48	0.44	0.42	0.43	0.35	0.33	0.34
7. other food	11.76	16.54	14.13	15.55	13.66	14.46	12.77	12.30	12.44
(i) food total	81.54	75.42	78.26	72.95	73.95	73.41	77.24	80.50	79.02
8. clothing	0.82	8.04	4.60	4.27	2.52	3.32	1.74	1.32	1.52
9. fuel and light	13.72	9.12	10.79	10.73	9.56	10.08	12.77	9.51	11.00
10. rent	0.00	0.00	0.00	1.10	0.00	0.54	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	3.92	7.42	6.35	10.95	13.92	12.65	8.25	8.67	8.46
(ii) non-food total	18.46	24.58	21.74	27.05	26.05	26.59	22.76	19.50	20.98
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	17	16	33	14	16	30	7	11	18
(v) average household size	5.27	6.75	5.95	6.72	8.16	7.38	6.13	4.47	5.13

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	38.35	42.72	39.58	32.12	35.76	34.06	24.83	38.77	37.41	21.80	31.29	26.18
2.	8.08	11.12	8.98	20.94	24.41	22.83	9.69	13.30	12.96	8.32	13.79	10.84
3.	3.57	1.91	3.68	5.11	3.00	3.95	2.63	3.66	3.56	3.92	2.64	3.33
4.	6.26	0.00	4.46	0.00	1.53	0.83	3.90	0.31	0.67	0.00	0.64	0.31
5.	5.68	10.90	7.16	6.45	4.78	5.55	3.32	6.55	6.25	7.76	3.59	5.82
6.	0.29	0.29	0.29	0.26	0.25	0.25	0.42	0.41	0.41	0.17	0.14	0.13
7.	13.53	8.54	12.13	12.20	17.59	15.18	15.38	11.96	12.24	11.50	13.79	12.58
(i)	75.76	75.48	76.28	77.08	87.32	82.65	60.17	74.96	73.50	53.47	65.88	59.19
8.	7.28	0.00	5.18	2.04	2.04	2.04	17.07	12.47	12.91	11.98	2.27	7.47
9.	7.50	8.17	7.67	7.73	4.40	5.93	10.22	4.74	5.27	8.45	6.14	7.38
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.	9.46	16.35	11.47	13.15	6.24	9.38	12.54	7.83	8.32	26.10	24.89	25.60
(ii)	24.24	24.52	24.32	22.92	12.68	17.35	39.83	25.04	26.50	46.53	34.12	40.81
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	6	2	8	4	3	7	5	7	12	3	5	8
(v)	5.01	5.13	5.04	4.80	4.72	4.76	1.76	6.10	4.91	4.44	3.83	4.13

CONSUMER EXPENDITURE

TABLE (1.74) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: WEST INDIA

reference period : month

number of sample villages : 136 ($s_1 = 168, s_2 = 68$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	20.91	25.53	23.03	20.70	14.20	16.95
2. milk and milk products	12.65	17.41	14.81	5.68	16.24	11.79
3. edible oil	2.92	4.69	3.74	2.54	2.61	2.60
4. meat, egg and fish	3.52	0.27	2.02	0.86	0.13	0.45
5. sugar	2.92	5.35	4.05	5.97	3.96	4.81
6. salt	0.15	0.16	0.15	0.13	0.07	0.10
7. other food	14.90	10.82	13.05	11.81	9.57	10.46
(i) food total	57.97	64.23	60.85	47.69	46.78	47.16
8. clothing	10.33	13.51	11.79	14.60	31.89	24.62
9. fuel and light	5.84	5.31	5.61	5.65	2.81	3.99
10. rent	3.37	0.51	2.06	0.00	0.00	0.00
11. taxes	0.00	1.25	0.57	0.00	0.07	0.03
12. miscellaneous	22.49	15.19	19.12	32.06	18.45	24.20
(ii) non-food total	42.03	35.77	39.15	52.31	53.22	52.84
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	5	4	9	3	3	6
(v) average household size	5.28	5.53	5.39	2.83	5.20	3.86

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	30.90	—	30.90	—	—	—	22.10	7.75	10.02	33.67	33.19	33.43
2.	6.09	—	6.09	—	—	—	19.78	4.14	6.62	9.56	14.24	12.00
3.	4.08	—	4.08	—	—	—	7.37	1.41	2.35	3.67	3.43	3.55
4.	3.68	—	3.68	—	—	—	9.31	5.29	5.93	2.37	0.97	1.66
5.	2.93	—	2.93	—	—	—	7.09	2.47	3.19	3.59	5.07	4.83
6.	0.10	—	0.10	—	—	—	0.39	0.08	0.13	0.31	0.30	0.30
7.	9.12	—	9.12	—	—	—	7.28	10.39	9.90	13.24	12.75	12.98
(i)	56.90	—	56.90	—	—	—	73.32	31.53	38.14	67.41	69.95	68.75
8.	30.02	—	30.02	—	—	—	0.00	1.58	1.33	8.18	8.20	8.23
9.	3.81	—	3.81	—	—	—	5.42	6.60	6.42	8.80	7.01	7.85
10.	1.20	—	1.20	—	—	—	0.00	14.09	11.87	0.92	0.67	0.76
11.	0.00	—	0.00	—	—	—	0.00	0.00	0.00	0.00	0.22	0.15
12.	8.07	—	8.07	—	—	—	21.26	46.20	42.24	14.69	13.95	14.26
(ii)	43.10	—	43.10	—	—	—	26.68	68.47	61.86	32.59	30.05	31.25
(iii)	100.00	—	100.00	—	—	—	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	3	—	3	—	—	—	1	1	2	68	68	136
(v)	3.22	—	3.22	—	—	—	1.00	1.00	1.00	5.28	5.88	5.58

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TABLE (1.75) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : CENTRAL INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116, s_2 = 116$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	49.75	57.14	52.98	51.77	49.57	50.52	41.38	50.55	46.81
2. milk and milk products	4.82	3.30	4.09	3.32	3.05	3.13	3.76	6.91	5.65
3. edible oil	3.69	2.38	3.07	2.90	2.63	2.71	2.86	2.19	2.41
4. meat, egg and fish	2.25	0.92	1.70	1.14	2.00	1.57	2.78	1.35	1.91
5. sugar	1.77	0.73	1.36	2.07	2.84	2.51	1.14	1.85	1.58
6. salt	0.64	0.73	0.68	0.62	0.74	0.73	0.57	0.51	0.50
7. other food	15.89	12.09	14.14	12.87	10.82	11.79	13.14	12.30	12.72
(i) food total	78.81	77.29	78.02	74.69	71.65	72.96	65.63	75.66	71.58
8. clothing	3.05	5.31	4.09	6.22	11.34	8.98	11.51	7.58	9.14
9. fuel and light	9.95	10.81	10.39	8.92	9.03	8.98	8.00	9.94	9.14
10. rent	0.00	0.00	0.00	0.00	0.21	0.10	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	8.19	6.59	7.50	10.17	7.77	8.98	14.86	6.82	10.14
(ii) non-food total	21.19	22.71	21.98	25.31	28.35	27.04	34.37	24.34	28.42
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	41	40	81	22	25	47	11	11	22
(v) average household size	5.36	5.26	5.31	4.74	4.90	4.83	4.26	5.10	4.73

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	34.55	34.61	34.58	37.22	30.72	33.07	34.20	40.01	36.64	23.86	33.43	29.63
2.	10.63	9.01	9.73	6.10	7.48	7.00	12.97	8.09	10.90	1.91	8.83	6.09
3.	2.73	3.03	2.88	3.02	3.32	3.20	2.41	1.54	2.05	3.32	3.42	3.36
4.	1.15	1.59	1.37	0.91	0.24	0.48	0.26	—	0.15	3.01	0.36	1.43
5.	1.72	3.17	2.59	2.42	2.84	2.66	2.82	1.99	2.51	3.41	1.76	2.42
6.	0.29	0.43	0.36	0.42	0.18	0.24	0.26	0.15	0.20	0.44	0.50	0.45
7.	11.35	12.55	12.03	14.56	10.26	11.89	10.41	9.88	10.19	16.13	10.82	12.93
(i)	62.42	64.39	63.54	64.65	55.04	58.54	63.33	61.66	62.64	52.08	59.12	56.31
8.	15.52	9.08	11.89	17.95	8.51	11.89	16.48	19.02	17.55	12.90	11.72	12.18
9.	6.90	9.80	8.57	9.55	12.91	11.71	6.17	4.62	5.53	7.89	6.22	6.89
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.18
11.	0.72	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.	14.44	16.73	15.71	7.85	23.54	17.86	14.02	14.70	14.28	26.69	22.94	24.44
(ii)	37.58	35.61	36.46	35.35	44.96	41.46	36.67	38.34	37.36	47.92	40.88	43.69
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	7	10	17	6	10	16	9	2	11	5	7	12
(v)	4.40	5.37	4.90	3.88	3.92	3.90	3.80	9.70	5.05	2.68	3.00	2.86

CONSUMER EXPENDITURE

TABLE (1.75) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: CENTRAL INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116, s_2 = 116$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	26.98	26.12	26.53	25.09	21.22	23.55
2. milk and milk products	8.12	26.31	17.37	5.64	13.39	8.71
3. edible oil	3.02	1.85	2.41	3.99	1.55	3.02
4. meat, egg and fish	8.31	0.77	4.51	0.89	0.97	0.94
5. sugar	3.06	5.40	4.28	1.82	3.28	2.41
6. salt	0.34	0.35	0.34	0.27	0.23	0.27
7. other food	12.77	11.85	12.26	12.82	10.66	11.93
(i) food total	62.60	72.65	67.70	50.52	51.30	50.83
8. clothing	17.57	3.24	10.27	14.54	21.06	17.08
9. fuel and light	4.27	9.22	6.80	4.60	5.67	5.02
10. rent	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	1.10	0.44
12. miscellaneous	15.56	14.89	15.23	30.34	20.87	26.63
(ii) non-food total	37.40	27.35	32.30	39.48	48.70	49.17
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	4	4	8	5	3	8
(v) average household size	3.38	3.33	3.35	5.13	4.24	4.76

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	19.62	7.32	10.52	24.52	15.78	17.14	8.84	31.22	13.12	37.84	35.58	36.64
2.	10.27	13.00	12.27	18.16	1.27	3.93	5.97	0.00	4.82	6.38	7.45	6.92
3.	3.42	2.41	2.69	1.44	1.34	1.36	0.58	1.90	0.84	3.06	2.35	2.69
4.	0.00	2.63	1.94	0.00	1.34	1.15	0.85	2.91	1.23	1.70	1.25	1.47
5.	2.99	3.89	3.66	0.23	4.45	3.80	0.32	0.68	0.39	2.04	2.59	2.36
6.	0.27	0.08	0.13	0.23	0.41	0.38	0.30	0.45	0.32	0.43	0.47	0.41
7.	7.77	9.35	8.93	15.37	6.72	8.02	7.44	5.06	7.01	13.01	10.50	11.64
(i)	44.34	38.68	40.14	59.95	31.31	35.78	24.30	42.22	27.73	64.46	60.19	62.13
8.	17.72	9.92	11.95	0.00	0.00	0.00	9.08	16.39	10.48	10.46	9.32	9.85
9.	8.62	3.32	4.71	5.29	1.81	2.36	1.26	6.28	2.22	7.65	7.84	7.74
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.62	0.09	0.00	0.08
11.	0.00	0.00	0.00	0.96	0.00	0.15	0.00	0.00	0.00	0.08	0.08	0.08
12.	29.32	48.08	43.20	33.80	66.88	61.71	64.58	35.11	58.95	17.26	22.57	20.12
(ii)	55.66	61.32	59.66	40.05	68.69	64.22	75.70	57.78	72.27	35.54	39.81	37.87
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	3	2	5	1	1	2	2	1	3	116	116	232
(v)	3.55	15.32	8.18	1.00	8.00	4.02	3.08	1.00	2.16	4.62	5.07	4.85

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TABLE (1.76) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH-WEST INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116$, $s_2 = 116$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	45.31	66.12	55.95	44.94	47.83	46.15	39.56	33.04	37.22
2. milk and milk products	5.78	7.90	6.82	15.83	13.40	14.87	16.59	14.23	15.74
3. edible oil	0.72	0.83	0.78	2.96	2.37	2.67	3.07	2.09	2.74
4. meat, egg and fish	0.18	0.42	0.39	0.31	0.31	0.31	0.57	2.01	1.05
5. sugar	1.81	2.49	2.14	4.60	2.99	3.90	5.42	7.07	6.05
6. salt	0.72	0.83	0.78	0.41	0.52	0.51	0.49	0.64	0.56
7. other food	8.12	6.03	7.02	6.03	9.38	7.38	8.98	9.81	9.28
(i) food total	62.64	84.62	73.88	75.08	76.80	75.79	74.68	68.89	72.64
8. clothing	5.60	3.74	4.68	7.05	9.18	7.90	10.92	9.32	10.33
9. fuel and light	17.50	6.44	11.89	8.89	7.22	8.21	7.85	10.53	8.80
10. rent	—	—	—	—	—	—	—	—	—
11. taxes	—	—	—	—	—	—	—	—	—
12. miscellaneous	14.26	5.20	9.55	8.98	6.80	8.10	6.55	11.26	8.23
(ii) non-food total	37.36	15.38	26.12	24.92	23.20	24.21	25.32	31.11	27.36
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	16	14	30	19	14	33	9	7	16
(v) average household size	6.15	6.30	6.23	6.36	6.99	6.60	4.43	4.49	4.45

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
1.	38.74	34.06	36.85	38.35	35.03	36.85	31.10	28.98	30.21	26.75	31.95	30.77
2.	26.53	23.06	25.16	21.20	19.14	20.27	29.41	12.75	22.15	24.09	26.77	26.14
3.	0.94	2.10	1.43	1.43	2.02	1.71	2.03	1.81	1.92	0.96	2.02	1.78
4.	1.31	0.98	1.15	0.33	3.19	1.65	0.35	0.78	0.51	0.73	0.35	0.44
5.	3.05	5.75	4.16	4.49	5.40	4.88	3.87	3.42	3.69	7.57	4.09	4.88
6.	0.51	0.35	0.43	0.33	0.43	0.38	0.30	0.21	0.25	0.18	0.22	0.22
7.	9.01	12.26	10.32	9.36	8.16	8.80	7.64	8.81	8.14	7.98	8.40	8.30
(i)	80.09	78.56	79.50	75.49	73.37	74.54	74.70	56.76	66.87	68.26	73.80	72.53
8.	5.96	3.85	5.09	8.52	8.53	8.49	6.89	9.90	8.19	11.28	4.13	5.77
9.	5.09	2.31	3.94	3.97	6.99	5.32	6.30	5.81	6.07	8.49	6.81	7.19
10.	—	—	—	—	—	—	—	—	—	—	—	—
11.	—	0.14	0.07	0.33	—	0.19	—	0.00	0.00	0.00	0.53	0.40
12.	8.86	15.14	11.40	11.69	11.11	11.46	12.11	27.53	18.87	11.97	14.73	14.11
(ii)	19.91	21.44	20.50	24.51	26.63	25.46	25.30	43.24	33.13	31.74	26.20	27.47
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	14	7	21	15	13	28	9	14	23	8	16	24
(v)	5.67	7.33	6.22	7.63	5.97	6.81	4.68	3.69	4.18	6.63	4.41	4.78

CONSUMER EXPENDITURE

TABLE (1.76) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH-WEST INDIA

reference period : month

number of sample villages : 232 ($s_1 = 116$, $s_2 = 116$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	28.06	24.69	26.32	19.34	21.06	20.64
2. milk and milk products	26.00	20.02	22.90	8.91	10.74	10.32
3. edible oil	2.77	1.28	2.03	1.96	0.90	1.16
4. meat, egg and fish	1.09	0.78	0.93	3.12	3.68	3.54
5. sugar	4.41	6.89	5.69	6.18	5.58	5.71
6. salt	0.35	0.16	0.27	0.29	0.26	0.26
7. other food	8.12	8.29	8.22	9.97	9.52	9.64
(i) food total	70.80	62.11	66.36	49.77	15.74	51.27
8. clothing	4.61	13.55	9.19	24.68	7.03	11.39
9. fuel and light	4.68	4.13	4.40	6.31	3.68	4.32
10. rent	—	—	—	—	—	—
11. taxes	—	—	—	—	—	—
12. miscellaneous	19.91	20.21	20.05	19.24	37.55	33.02
(ii) non-food total	29.20	37.89	33.64	50.23	48.26	48.73
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	10	8	18	6	9	15
(v) average household size	3.89	5.61	4.61	3.54	9.81	6.83

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	18.69	18.68	18.68	15.00	16.02	15.60	9.50	14.01	10.83	31.39	30.16	30.75
2.	15.23	24.68	20.58	27.02	28.02	27.61	11.64	21.36	14.49	20.08	18.60	19.31
3.	0.29	1.66	1.06	1.02	1.46	1.28	0.44	2.68	1.09	1.69	1.63	1.66
4.	1.77	0.21	0.89	0.15	0.87	0.57	1.02	2.77	1.53	0.81	1.41	1.12
5.	5.84	3.96	4.77	7.51	5.67	6.44	1.38	3.99	2.14	4.57	4.79	4.68
6.	0.11	0.26	0.19	0.18	0.11	0.13	0.09	0.12	0.10	0.31	0.28	0.30
7.	8.18	9.58	8.99	6.32	13.50	10.49	7.41	10.68	8.38	8.07	9.25	8.71
(i)	50.11	59.03	55.16	57.20	65.65	62.12	31.48	55.61	38.56	66.92	66.12	66.53
8.	6.47	5.02	5.66	32.70	11.72	20.54	8.05	14.67	9.99	9.82	7.83	8.77
9.	5.67	3.68	4.55	4.90	5.37	5.16	2.70	2.99	2.78	6.63	5.36	5.92
10.	—	—	—	—	0.20	0.11	2.74	1.38	2.34	0.12	0.06	0.12
11.	—	0.05	0.03	—	—	—	0.13	—	0.09	0.06	0.11	0.06
12.	37.75	32.22	34.60	5.20	17.07	12.07	54.90	25.35	46.24	16.45	20.52	18.60
(ii)	49.89	40.97	44.84	42.80	34.35	37.88	68.52	44.39	61.44	33.08	33.88	33.47
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	3	6	9	3	5	8	4	3	7	116	116	232
(v)	10.49	4.86	6.45	5.13	4.94	5.02	1.89	1.15	1.66	5.54	5.63	5.59

URBAN

TABLE (2.10): DISTRIBUTION OF SAMPLE BLOCKS AND HOUSEHOLDS ALLOTTED AND SURVEYED BY STATES AND POPULATION ZONES IN URBAN AREAS

states and population zones	number of sample blocks						number of sample households					
	allotted			surveyed			allotted			surveyed		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Uttar Pradesh	132	132	264	132	132	264	132	132	264	132	132	264
(i) North India	132	132	264	132	132	264	132	132	264	132	132	264
2. Bihar	36	36	72	36	36	72	36	36	72	36	36	72
3. Orissa	8	8	16	8	8	16	8	8	16	8	8	16
4. West Bengal	140	140	280	140	140	280	140	140	280	140	139	279
5. Assam	10	10	20	10	10	20	10	10	20	10	10	20
6. Manipur	2	2	4	2	2	4	2	2	4	2	2	4
7. Tripura	—	—	—	—	—	—	—	—	—	—	—	—
(ii) East India	196	196	392	196	196	392	196	196	392	196	195	391
8. Andhradesh	40	40	80	40	40	80	40	40	80	40	40	80
9. Madras	124	124	248	124	122	246	124	124	248	124	122	246
10. Mysore	38	38	76	38	38	76	38	38	76	38	38	76
11. Travancore-Cochin	28	28	56	28	28	56	28	28	56	28	28	56
12. Coorg	2	2	4	2	2	4	2	2	4	2	2	4
(iii) South India	232	232	464	232	230	462	232	232	464	232	230	462
13. Bombay	176	176	352	176	176	352	176	176	352	175	175	350
14. Sourashtra	18	18	36	18	17	35	18	18	36	18	17	35
15. Kutch	2	2	4	2	2	4	2	2	4	2	2	4
(iv) West India	196	196	392	196	195	391	196	196	392	195	194	389
16. Madhya Pradesh	40	40	80	40	40	80	40	40	80	40	40	80
17. Madhya Bharat	22	22	44	22	21	43	22	22	44	22	21	43
18. Hyderabad	52	52	104	52	52	104	52	52	104	52	52	104
19. Bhopal	2	2	4	2	2	4	2	2	4	2	2	4
20. Vindhya Pradesh	4	4	8	4	4	8	4	4	8	4	4	8
(v) Central India	120	120	240	120	119	239	120	120	240	120	119	239
21. Rajasthan	36	36	72	36	36	72	36	36	72	36	36	72
22. Punjab	36	36	72	35	36	71	36	36	72	35	36	71
23. PEPSU	10	10	20	10	10	20	10	10	20	10	10	20
24. Jammu and Kashmir	54	54	108	54	54	108	54	54	108	54	54	108
25. Ajmer	4	4	8	4	4	8	4	4	8	4	4	8
26. Delhi	36	36	72	35	36	71	36	36	72	35	36	71
27. Himachal Pradesh	2	2	4	2	2	4	2	2	4	2	2	4
(vi) North-West India	178	178	356	176	178	354	178	178	356	176	178	354
(vii) all India	1054	1054	2108	1052	1050	2102	1054	1054	2108	1051	1048	2099

CONSUMER EXPENDITURE

TABLE (2.20): DISTRIBUTION OF SAMPLE HOUSEHOLDS BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES IN URBAN AREAS

reference period : month

monthly per capita expenditure classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0-8	1	9	2	24	8	6	9	58
	2	8	4	19	2	11	5	49
	combined	17	6	43	10	17	14	107
8-11	1	8	7	26	11	23	10	85
	2	18	12	35	16	23	13	117
	combined	26	19	61	27	46	23	202
11-13	1	14	5	25	11	10	17	82
	2	15	4	28	13	8	12	80
	combined	29	9	53	24	18	29	162
13-15	1	12	12	15	11	10	11	71
	2	7	3	21	10	11	15	67
	combined	19	15	36	21	21	26	138
15-18	1	15	18	14	19	14	22	102
	2	13	26	26	23	9	21	118
	combined	28	44	40	42	23	43	220
18-21	1	14	18	22	7	11	17	89
	2	16	12	14	16	9	20	87
	combined	30	30	36	23	20	37	176
21-24	1	8	19	19	15	9	17	87
	2	8	19	13	8	8	15	71
	combined	16	38	32	23	17	32	158
24-28	1	12	16	14	21	8	14	85
	2	9	20	16	14	5	15	79
	combined	21	36	30	35	13	29	164
28-34	1	13	26	17	27	9	16	108
	2	9	27	13	17	14	17	97
	combined	22	53	30	44	23	33	205
34-43	1	8	20	18	23	7	12	88
	2	10	20	17	29	6	18	100
	combined	18	40	35	52	13	30	188
43-55	1	8	20	15	17	7	9	76
	2	8	23	14	16	8	10	79
	combined	16	42	29	33	15	19	155
55 and above	1	11	33	23	25	6	22	120
	2	11	25	14	30	7	17	104
	combined	22	58	37	55	13	39	224
all expenditure classes	1	132	196	232	195	120	176	1052
	2	132	195	230	194	119	178	1048
	combined	264	391	462	389	239	354	2100
number of sample blocks	1	132	196	232	196	120	176	1052
	2	132	196	230	195	119	178	1050
	combined	264	392	462	391	239	354	2102

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TABLE (2.30): PERCENTAGE DISTRIBUTION OF ESTIMATED NUMBER OF HOUSEHOLDS
BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES IN URBAN AREAS

monthly per capita expenditure classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0-8	1	5.13	1.91	10.84	4.54	4.09	4.89	5.55
	2	9.41	2.59	10.87	1.41	9.97	3.07	6.13
	combined	7.18	2.25	10.85	3.01	6.92	3.94	5.83
8-11	1	6.65	3.22	10.25	7.23	23.39	8.28	9.39
	2	16.49	5.75	17.70	10.72	14.65	9.64	12.50
	combined	11.36	4.50	13.93	8.94	19.19	8.99	10.93
11-13	1	10.52	1.73	10.48	7.54	7.44	9.04	7.75
	2	11.14	7.56	13.86	9.46	8.60	4.08	9.51
	combined	10.81	4.66	12.15	8.48	8.00	8.46	8.62
13-15	1	7.41	7.23	6.52	6.83	9.06	5.74	7.09
	2	4.88	2.11	8.97	5.22	10.41	1.11	6.85
	combined	6.20	4.65	7.73	6.04	9.71	8.54	6.97
15-18	1	12.41	10.64	6.35	11.19	11.55	10.17	10.12
	2	8.06	14.04	10.35	11.72	7.18	6.54	10.10
	combined	10.33	12.35	8.33	11.45	9.45	8.28	10.11
18-21	1	10.08	7.74	8.60	3.22	5.16	5.74	6.78
	2	11.28	5.92	5.26	9.08	5.13	10.47	7.63
	combined	10.66	6.83	6.96	6.09	5.15	8.20	7.20
21-24	1	6.34	12.65	7.76	8.28	8.07	9.79	8.79
	2	6.58	11.23	5.53	5.35	6.50	5.87	6.86
	combined	6.46	11.94	6.61	6.84	7.31	7.75	7.84
24-28	1	8.75	8.36	4.50	8.86	5.41	6.12	7.00
	2	5.57	11.78	5.30	6.03	5.67	8.33	7.12
	combined	7.22	10.08	4.89	7.47	5.53	7.27	7.06
28-34	1	13.70	13.97	9.33	13.41	6.17	15.47	11.91
	2	6.01	10.78	4.83	9.06	10.20	14.50	8.87
	combined	10.01	12.36	7.11	11.27	8.11	14.96	10.41
34-43	1	4.42	9.37	11.28	10.06	6.29	9.60	8.83
	2	8.12	10.30	7.05	12.23	6.38	7.15	8.76
	combined	6.20	9.83	9.19	11.13	6.33	8.33	8.79
43-55	1	6.75	11.21	5.16	8.99	8.43	5.24	7.69
	2	4.12	9.83	4.12	6.59	7.98	7.61	6.61
	combined	5.49	10.52	4.65	7.82	8.21	6.47	7.16
55 and above	1	7.84	11.97	9.02	9.85	4.94	9.92	9.10
	2	8.34	8.11	6.16	13.13	7.33	11.63	9.06
	combined	8.08	10.03	7.60	11.46	6.09	10.81	9.08
all expenditure classes	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	2	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	combined	100.00	100.00	100.00	100.00	100.00	100.00	100.00
number of sample blocks	1	132	196	232	196	120	176	1052
	2	132	196	230	195	119	178	1050
	combined	264	392	462	391	239	354	2102
number of sample households	1	132	196	232	195	120	176	1052
	2	132	195	230	194	119	178	1048
	combined	264	391	462	389	239	354	2100

CONSUMER EXPENDITURE

TABLE (2.40): PERCENTAGE DISTRIBUTION OF ESTIMATED NUMBER OF PERSONS BY
MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION
ZONES IN URBAN AREAS

monthly per capita expen- diture classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North- West India	
		(3)	(4)	(5)	(6)	(7)	(8)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0-8	1	7.31	2.01	15.68	5.91	5.11	5.35	7.59
	2	11.37	3.13	12.62	2.42	14.58	2.47	7.74
	combined	9.27	2.60	14.11	4.26	9.40	3.89	7.66
8-11	1	8.37	3.98	12.94	8.41	29.59	10.01	11.83
	2	20.59	8.90	18.52	11.84	20.04	13.97	15.43
	combined	14.27	6.57	15.81	10.03	25.26	12.01	13.61
11-13	1	13.82	1.95	12.90	9.57	6.52	10.27	9.46
	2	11.65	6.40	14.63	11.19	9.89	1.99	9.89
	combined	12.77	4.30	13.78	10.33	8.05	6.08	9.67
13-15	1	7.12	12.20	7.84	7.82	8.23	5.70	8.18
	2	6.45	2.35	9.29	6.14	9.82	11.00	7.38
	combined	6.80	7.01	8.59	7.03	8.95	8.38	7.79
15-18	1	14.82	13.07	6.69	13.00	16.68	14.28	12.48
	2	7.67	13.22	10.08	16.04	8.55	11.76	11.46
	combined	11.37	13.15	8.43	14.44	13.00	13.01	11.98
18-21	1	8.74	8.48	7.06	3.40	5.47	6.52	6.49
	2	10.30	6.50	4.24	9.61	4.68	11.74	7.54
	combined	9.49	7.44	5.61	6.32	5.11	9.16	7.01
21-24	1	4.97	12.07	6.73	9.20	8.03	11.90	8.64
	2	12.75	12.59	6.06	5.36	4.87	4.72	7.70
	combined	8.73	12.34	6.39	7.40	6.60	8.27	8.18
24-28	1	7.75	6.08	4.91	8.01	5.85	5.85	6.39
	2	6.21	9.43	5.44	4.67	5.08	6.26	6.17
	combined	7.01	7.84	5.18	6.43	5.50	6.06	6.28
28-34	1	13.66	12.51	6.64	13.31	3.64	14.13	10.50
	2	2.81	10.93	4.44	8.79	7.56	15.78	8.04
	combined	8.42	11.68	5.51	11.18	5.42	14.96	9.28
34-43	1	3.88	9.34	7.90	11.07	4.45	9.16	7.88
	2	4.00	11.08	6.49	00.05	5.16	5.92	7.38
	combined	3.93	10.26	7.18	10.59	4.77	7.52	7.64
43-55	1	3.33	9.71	5.78	5.83	3.83	2.27	5.33
	2	3.29	10.07	3.84	5.08	4.23	6.29	5.46
	combined	3.31	9.90	4.78	5.48	4.01	4.31	5.39
55 and above	1	6.23	8.60	4.93	4.47	2.60	4.56	5.23
	2	2.91	5.40	4.35	8.81	5.54	8.10	5.81
	combined	4.63	6.91	4.63	6.51	3.93	6.34	5.51
all expenditure classes	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	2	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	combined	100.00	100.00	100.00	100.00	100.00	100.00	100.00
number of blocks	1	132	196	232	196	120	176	1052
	2	132	196	230	195	119	178	1050
	combined	264	392	462	391	239	354	2102
number of sample house- holds	1	132	196	232	195	120	176	1052
	2	132	195	230	194	119	178	1048
	combined	264	391	462	389	239	354	2100

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TABLE (2.50): AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES
IN URBAN AREAS

reference period : month

monthly per capita expenditure classes in rupees	sample	population zones						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0-8	1	6.40	4.05	6.66	5.88	5.62	5.34	6.10
	2	5.49	5.09	5.79	7.15	5.88	3.71	5.62
	combined	5.83	4.66	6.23	6.18	5.80	4.68	5.85
8-11	1	5.65	4.75	5.82	5.26	5.68	5.90	5.61
	2	5.68	6.54	5.21	4.61	5.49	6.68	5.50
	combined	5.67	5.90	5.44	4.88	5.61	6.34	5.55
11-13	1	5.90	4.34	5.67	5.74	3.94	5.55	5.44
	2	4.75	3.58	5.26	4.94	4.62	2.26	4.63
	combined	5.34	3.72	5.44	5.30	4.29	4.47	5.00
13-15	1	4.32	6.50	5.54	5.18	4.08	4.85	5.14
	2	6.00	4.70	5.16	4.92	3.79	4.56	4.79
	combined	4.95	6.09	5.32	5.07	3.93	4.66	4.97
15-18	1	5.36	4.73	4.85	5.26	6.48	6.86	5.50
	2	4.32	3.97	4.86	5.72	4.78	8.29	5.05
	combined	4.98	4.30	4.85	5.49	5.86	7.45	5.28
18-21	1	3.89	4.22	3.78	4.78	4.76	5.54	4.26
	2	4.15	4.64	4.01	4.42	3.66	5.17	4.40
	combined	4.02	4.40	3.86	4.52	4.24	5.29	4.34
21-24	1	3.52	3.67	4.04	5.02	4.47	5.94	4.38
	2	8.80	4.74	5.46	4.19	3.01	3.70	4.99
	combined	6.10	4.18	4.63	4.70	3.85	5.06	4.64
24-28	1	3.98	2.80	5.02	4.08	4.86	4.67	4.06
	2	5.07	3.38	5.12	3.23	3.60	3.46	3.86
	combined	4.38	3.14	5.07	3.75	4.24	3.95	3.96

CONSUMER EXPENDITURE

TABLE (2.50) (Contd.) : AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES AND BY POPULATION ZONES IN URBAN AREAS

reference period : month

monthly per capita expenditure classes in rupees	sample	population zone						all India
		North India	East India	South India	West India	Central India	North-West India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
28-34	1	4.48	3.45	3.28	4.49	2.64	4.46	3.93
	2	2.12	4.28	4.58	4.05	2.98	5.02	4.04
	combined	3.80	3.81	3.72	4.32	2.84	4.74	3.97
34-43	1	3.94	3.84	3.22	4.97	3.18	4.66	3.97
	2	2.24	4.55	4.59	3.43	3.25	3.82	3.75
	combined	2.87	4.21	3.74	4.14	3.21	4.28	3.86
43-55	1	2.21	3.33	5.17	2.93	2.04	2.11	3.08
	2	3.63	4.33	4.64	3.22	2.13	3.81	3.68
	combined	2.72	3.80	4.93	3.05	2.08	3.15	3.36
55 and above	1	3.57	2.76	2.52	2.05	2.36	2.25	2.56
	2	1.59	2.81	3.52	2.80	3.04	3.21	2.85
	combined	2.59	2.78	2.92	2.47	2.75	2.79	2.70
all expenditure classes	1	4.49	3.85	4.61	4.52	4.49	4.88	4.45
	2	4.54	4.22	4.98	4.18	4.02	4.61	4.45
	combined	4.52	4.04	4.79	4.35	4.26	4.74	4.45
number of sample blocks	1	132	196	232	196	120	176	1052
	2	132	196	230	195	119	178	1050
	combined	264	392	462	391	239	354	2102
number of sample households	1	132	196	232	195	120	176	1052
	2	132	195	230	194	119	178	1048
	combined	264	391	462	389	239	354	2100

TABLE (2.60) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : ALL INDIA

reference period : month

number of sample blocks : 2102 ($s_1 = 1052$, $s_2 = 1050$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.12	3.02	3.07	3.98	4.40	4.21	4.41	4.55	4.48
2. milk and milk products	0.26	0.07	0.17	0.57	0.54	0.55	1.04	0.86	0.95
3. edible oil	0.19	0.23	0.21	0.34	0.33	0.34	0.42	0.54	0.48
4. meat, egg and fish	0.13	0.15	0.14	0.35	0.28	0.31	0.53	0.46	0.49
5. sugar	0.18	0.10	0.14	0.27	0.25	0.26	0.37	0.34	0.36
6. salt	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04
7. other food	0.88	1.06	0.97	1.37	1.36	1.36	1.66	1.87	1.77
(i) food total	4.79	4.66	4.73	6.91	7.20	7.07	8.47	8.66	8.57
8. clothing	0.17	0.15	0.16	0.18	0.36	0.28	0.42	0.45	0.43
9. fuel and light	0.57	0.59	0.58	0.87	0.85	0.86	0.99	1.16	1.08
10. rent	0.04	0.02	0.03	0.18	0.10	0.14	0.16	0.15	0.16
11. taxes	0.05	0.04	0.04	0.00	0.04	0.02	0.02	0.10	0.06
12. miscellaneous	0.63	0.65	0.64	1.06	1.15	1.11	1.72	1.50	1.61
(ii) non-food total	1.46	1.45	1.45	2.29	2.50	2.41	3.31	3.36	3.34
(iii) total	6.25	6.11	6.18	9.20	9.70	9.48	11.78	12.02	11.91
(iv) number of sample households	58	49	107	85	117	202	82	80	162
(v) average household size	6.10	5.62	5.85	5.61	5.50	5.55	5.44	4.63	5.00

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	4.73	5.01	4.86	5.00	4.86	4.94	5.74	5.48	5.60	5.92	6.58	6.22
2.	1.20	1.41	1.30	1.88	1.89	1.88	1.63	2.24	1.96	2.60	2.13	2.38
3.	0.52	0.49	0.51	0.53	0.64	0.58	0.68	0.76	0.72	0.64	0.76	0.69
4.	0.48	0.45	0.47	0.39	0.46	0.42	0.84	0.64	0.74	0.63	0.81	0.71
5.	0.46	0.48	0.47	0.59	0.60	0.59	0.52	0.78	0.66	0.73	0.61	0.67
6.	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05
7.	2.38	2.24	2.32	2.34	2.51	2.42	3.23	3.09	3.15	3.14	3.72	3.41
(i)	9.82	10.12	9.98	10.78	11.00	10.87	12.68	13.04	12.88	13.71	14.66	14.13
8.	0.49	0.35	0.42	0.80	0.92	0.86	0.88	0.88	0.88	1.82	1.05	1.46
9.	1.20	1.26	1.23	1.18	1.38	1.27	1.42	1.50	1.47	1.45	1.44	1.44
10.	0.41	0.16	0.29	0.34	0.44	0.39	0.61	0.73	0.67	0.69	0.52	0.61
11.	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.05	0.03	0.10	0.02	0.06
12.	1.98	2.23	2.10	3.15	2.69	2.94	3.80	3.32	3.54	4.49	4.69	4.58
(ii)	4.10	4.01	4.05	5.50	5.45	5.48	6.73	6.48	6.59	8.55	7.72	8.15
(iii)	13.92	14.13	14.03	16.28	16.45	16.35	19.41	19.52	19.47	22.26	22.38	22.28
(iv)	71	67	138	102	118	220	89	87	176	87	71	158
(v)	5.14	4.79	4.97	5.50	5.05	5.28	4.26	4.40	4.34	4.38	4.99	4.64

CONSUMER EXPENDITURE

TABLE (2.60) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD
OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER
CAPITA EXPENDITURE CLASSES IN URBAN AREAS: ALL INDIA

reference period : month

number of sample blocks = 2102 ($s_1 = 1052$, $s_2 = 1050$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	5.43	5.85	5.64	6.26	5.99	6.14
2. milk and milk products	2.84	2.81	2.82	3.99	3.86	3.94
3. edible oil	0.84	0.92	0.88	1.05	0.96	1.01
4. meat, egg and fish	1.05	0.90	0.98	0.85	1.14	0.97
5. sugar	0.85	0.81	0.83	1.06	1.00	1.03
6. salt	0.05	0.06	0.05	0.06	0.05	0.06
7. other food	4.19	4.35	4.27	4.82	4.56	4.71
(i) food total	15.25	15.70	15.47	18.09	17.56	17.86
8. clothing	2.49	2.00	2.25	2.36	2.05	2.22
9. fuel and light	1.82	1.75	1.78	2.07	1.86	1.93
10. rent	0.71	1.00	0.85	0.75	1.18	0.93
11. taxes	0.17	0.22	0.19	0.12	0.08	0.10
12. miscellaneous	5.47	5.17	5.32	7.43	7.78	7.58
(ii) non-food total	10.66	10.14	10.39	12.73	12.95	12.81
(iii) total	25.91	25.84	25.86	30.82	30.51	30.67
(iv) number of sample households	85	79	164	108	97	205
(v) average household size	4.06	3.86	3.96	3.93	4.04	3.97

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	6.36	6.22	6.29	7.08	6.81	6.95	9.12	6.84	7.93	5.38	5.28	5.33
2.	4.85	4.85	4.85	5.12	6.54	5.83	10.18	9.23	9.69	2.64	2.56	2.60
3.	1.13	1.08	1.11	1.36	1.11	1.24	1.67	1.57	1.62	0.71	0.71	0.71
4.	1.15	1.37	1.25	2.71	1.47	2.09	2.61	2.99	2.81	0.83	0.80	0.81
5.	1.12	1.12	1.12	1.31	1.51	1.41	1.53	1.65	1.59	0.69	0.68	0.69
6.	0.06	0.06	0.06	0.06	0.05	0.06	0.07	0.07	0.07	0.05	0.05	0.05
7.	5.45	5.64	5.54	7.24	7.02	7.13	10.78	10.09	10.42	3.50	3.47	3.49
(i)	20.12	20.34	20.22	24.88	24.51	24.71	35.96	32.44	34.13	13.80	13.55	13.68
8.	3.09	2.96	3.03	4.40	4.31	4.35	9.16	6.77	7.92	1.79	1.52	1.66
9.	2.31	2.16	2.24	2.60	2.49	2.54	4.08	3.51	3.78	1.57	1.52	1.55
10.	1.72	1.92	1.82	2.01	1.64	1.82	5.66	3.84	4.72	0.88	0.80	0.84
11.	0.08	0.08	0.08	0.07	0.30	0.18	0.59	0.25	0.42	0.08	0.08	0.08
12.	10.66	10.10	10.39	14.00	14.87	14.43	32.44	32.06	32.24	5.94	5.82	5.88
(ii)	17.86	17.22	17.56	23.08	23.61	23.33	51.93	46.43	49.08	10.26	9.74	10.01
(iii)	37.98	37.56	37.78	47.96	48.12	48.04	87.89	78.87	83.21	24.06	23.29	23.69
(iv)	88	100	188	76	79	155	120	104	224	1051	1048	2099
(v)	3.97	3.75	3.86	3.08	3.68	3.36	2.56	2.85	2.70	4.45	4.45	4.45

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.61): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS : NORTH INDIA

reference period : month

number of sample blocks : 264 ($s_2 = 132$, $s_2 = 132$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.62	3.14	3.34	4.01	4.63	4.44	4.66	4.85	4.74
2. milk and milk products	0.43	0.01	0.18	0.54	0.47	0.49	0.66	1.05	0.83
3. edible oil	0.29	0.13	0.19	0.36	0.27	0.30	0.36	0.60	0.47
4. meat, egg and fish	0.10	0.07	0.08	0.16	0.29	0.25	0.41	0.24	0.34
5. sugar	0.25	0.08	0.15	0.15	0.21	0.19	0.33	0.38	0.35
6. salt	0.02	0.02	0.02	0.03	0.04	0.04	0.03	0.04	0.04
7. other food	0.94	0.98	0.96	1.66	1.22	1.35	1.27	1.81	1.51
(i) food total	5.65	4.43	4.92	6.91	7.13	7.06	7.72	8.97	8.28
8. clothing	0.26	0.10	0.17	0.09	0.51	0.38	0.60	0.47	0.54
9. fuel and light	0.57	0.60	0.59	1.11	0.90	0.97	0.93	0.94	0.93
10. rent	0.08	—	0.04	0.18	0.03	0.08	0.06	0.12	0.09
11. taxes	—	—	—	—	—	—	0.07	0.05	0.06
12. miscellaneous	0.66	0.44	0.53	0.74	1.20	1.06	2.19	1.20	1.75
(ii) non-food total	1.57	1.14	1.33	2.12	2.64	2.49	3.85	2.78	3.37
(iii) total	7.22	5.57	6.25	9.03	9.77	9.55	11.57	11.75	11.65
(iv) number of sample households	9	8	17	8	18	26	14	15	29
(v) average household size	6.40	5.49	5.83	5.65	5.68	5.67	5.90	4.75	5.34

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.11	4.82	4.98	4.56	4.06	4.40	6.09	5.57	5.82	5.53	6.26	6.05
2.	1.64	1.39	1.53	2.39	2.44	2.41	2.16	3.72	2.98	3.15	2.51	2.70
3.	0.42	0.47	0.44	0.54	0.61	0.56	0.59	0.66	0.63	0.53	0.62	0.59
4.	0.23	0.64	0.41	0.17	0.57	0.30	0.36	0.27	0.31	0.16	0.40	0.33
5.	0.34	0.50	0.41	0.34	0.44	0.37	0.40	0.93	0.68	0.78	0.60	0.65
6.	0.05	0.04	0.05	0.04	0.04	0.04	0.03	0.05	0.04	0.04	0.04	0.04
7.	1.93	1.68	1.81	2.04	2.32	2.13	2.78	2.74	2.76	2.62	3.98	3.58
(i)	9.72	9.54	9.63	10.08	10.48	10.21	12.41	13.94	13.22	12.81	14.41	13.94
8.	0.76	0.38	0.59	0.75	1.00	0.83	0.44	0.59	0.52	1.23	0.25	0.54
9.	1.29	1.18	1.24	1.21	1.54	1.32	1.58	1.63	1.61	1.31	1.00	1.09
10.	—	—	—	0.23	0.09	0.19	0.60	0.74	0.67	0.90	0.11	0.34
11.	0.07	—	0.04	—	—	—	—	—	—	0.38	—	0.11
12.	1.93	2.99	2.42	4.36	3.62	4.12	4.08	2.65	3.33	4.91	6.51	6.04
(ii)	4.05	4.55	4.29	6.55	6.25	6.46	6.70	5.61	6.13	8.73	7.87	8.12
(iii)	13.77	14.09	13.92	16.63	16.73	16.67	19.11	19.55	19.35	21.54	22.28	22.06
(iv)	12	7	19	15	13	28	14	16	30	8	8	16
(v)	4.32	6.00	4.95	5.36	4.32	4.98	3.89	4.15	4.02	3.52	8.80	6.10

CONSUMER EXPENDITURE

TABLE (2.61) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: NORTH INDIA

reference period : month		number of sample blocks : 264 (s ₁ = 132, s ₂ = 132)					
		monthly per capita expenditure classes in rupees					
items		24-28			28-34		
		s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)		(23)	(24)	(25)	(26)	(27)	(28)
1.	foodgrains	5.16	5.78	5.43	6.71	8.87	7.06
2.	milk and milk products	3.65	3.81	3.72	4.20	4.28	4.21
3.	edible oil	1.01	0.75	0.90	0.85	1.13	0.89
4.	meat, egg and fish	0.36	0.55	0.44	0.52	0.38	0.50
5.	sugar	0.91	0.58	0.76	0.74	0.58	0.71
6.	salt	0.05	0.05	0.05	0.05	0.08	0.06
7.	other food	3.71	2.85	3.34	3.79	5.32	4.04
(i)	food total	14.85	14.37	14.64	16.86	20.64	17.47
8.	clothing	0.56	2.32	1.31	3.11	0.73	2.73
9.	fuel and light	1.46	1.29	1.39	1.98	2.18	2.01
10.	rent	0.67	0.75	0.70	0.51	1.34	0.65
11.	taxes	0.71	1.12	0.89	0.45	—	0.38
12.	miscellaneous	7.32	6.38	6.92	7.54	5.10	7.15
(ii)	non-food total	10.72	11.86	11.21	13.59	9.35	12.92
(iii)	total	25.57	26.23	25.85	30.45	29.99	30.39
(iv)	number of sample households	12	9	21	13	9	22
(v)	average household size	3.98	5.07	4.38	4.48	2.12	3.80

monthly per capita expenditure classes in rupees												
srl. no.	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	4.97	7.20	6.06	9.40	6.26	7.89	9.36	7.34	8.75	5.50	5.19	5.35
2.	6.28	6.17	6.22	5.52	7.90	6.66	14.87	10.67	13.59	3.20	2.38	2.80
3.	0.99	0.91	0.95	0.84	0.98	0.91	1.81	1.04	1.58	0.66	0.54	0.60
4.	0.67	0.79	0.73	0.99	0.13	0.58	2.35	3.82	2.80	0.46	0.45	0.46
5.	1.14	1.04	1.09	1.51	2.18	1.83	1.84	2.39	2.00	0.60	0.57	0.59
6.	0.05	0.06	0.06	0.07	0.05	0.06	0.07	0.09	0.08	0.04	0.04	0.04
7.	5.15	4.82	4.99	3.65	7.50	5.50	11.09	10.45	10.90	3.01	2.72	2.87
(i)	19.25	20.99	20.10	21.98	25.00	23.43	41.39	35.80	39.70	13.47	11.89	12.71
8.	2.28	3.37	2.82	11.54	6.43	9.09	5.28	12.54	7.48	1.64	1.24	1.45
9.	2.38	2.76	2.57	1.56	2.69	2.10	6.42	4.56	5.85	1.66	1.32	1.50
10.	1.23	1.93	1.58	0.33	0.50	0.41	1.04	4.13	1.98	0.41	0.42	0.41
11.	0.48	0.11	0.30	—	0.66	0.32	2.08	—	1.45	0.30	0.10	0.20
12.	11.08	9.15	10.14	11.41	14.59	12.94	38.27	37.60	38.07	6.59	4.49	5.58
(ii)	17.45	17.32	17.41	24.84	24.87	24.86	53.09	58.83	54.83	10.60	7.57	9.14
(iii)	36.70	38.31	37.51	46.82	49.87	48.29	94.48	94.63	94.53	24.07	19.46	21.85
(iv)	8	10	18	8	8	16	11	11	22	132	132	264
(v)	3.94	2.24	2.87	2.21	3.63	2.72	3.57	1.59	2.59	4.49	4.54	4.52

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.62) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS : EAST INDIA

reference period : month

number of sample blocks : 392 ($s_1 = 196, s_2 = 196$)

items	monthly per capita expenditure in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.86	4.33	4.16	4.53	5.66	5.34	5.54	6.30	6.13
2. milk and milk products	0.03	0.00	0.01	0.04	0.23	0.18	0.81	0.23	0.36
3. edible oil	0.30	0.14	0.20	0.42	0.27	0.32	0.44	0.50	0.49
4. meat, egg and fish	0.21	0.27	0.25	0.36	0.13	0.20	0.30	0.87	0.74
5. sugar	0.12	0.08	0.09	0.14	0.14	0.14	0.12	0.08	0.09
6. salt	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.06	0.05
7. other food	1.07	1.01	1.04	1.34	1.12	1.18	1.23	2.00	1.83
(i) food total	5.64	5.88	5.80	6.88	7.59	7.41	8.48	10.04	9.69
8. clothing	0.49	0.34	0.40	0.18	0.10	0.12	0.29	0.08	0.13
9. fuel and light	0.44	0.53	0.50	0.67	0.74	0.72	1.04	0.92	0.95
10. rent	0.02	—	0.01	0.29	0.04	0.11	0.05	—	0.11
11. taxes	—	—	—	—	0.09	0.07	—	0.01	0.01
12. miscellaneous	0.11	0.75	0.52	0.75	0.82	0.80	1.33	1.66	1.58
(ii) non-food total	1.06	1.62	1.43	1.89	1.79	1.82	3.16	2.67	2.78
(iii) total	6.70	7.50	7.23	8.77	9.38	9.23	11.64	12.71	12.47
(iv) number of sample households	2	4	6	7	12	19	5	4	5
(v) average household size	4.05	5.09	4.66	4.75	6.54	5.80	4.34	3.58	3.72

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.11	5.06	5.10	6.53	6.53	6.53	6.82	6.92	6.86	7.87	8.33	8.12
2.	0.64	0.74	0.66	1.95	0.88	1.38	0.77	0.82	0.79	1.41	1.50	1.46
3.	0.60	0.85	0.64	0.54	0.66	0.60	0.51	0.70	0.60	0.80	0.80	0.80
4.	0.84	0.45	0.77	0.72	1.08	0.91	1.62	1.02	1.35	1.28	1.06	1.16
5.	0.30	0.53	0.34	0.34	0.31	0.32	0.31	0.36	0.33	0.56	0.40	0.47
6.	0.05	0.05	0.05	0.06	0.05	0.06	0.06	0.06	0.06	0.08	0.08	0.08
7.	2.29	2.10	2.26	2.42	2.29	2.35	2.71	3.62	3.13	3.28	4.02	3.68
(i)	9.83	9.78	9.82	12.56	11.80	12.15	12.80	13.50	13.12	15.28	16.19	15.77
8.	0.48	1.02	0.58	0.68	0.83	0.76	0.87	0.67	0.78	1.01	0.84	0.92
9.	1.05	1.00	1.04	0.94	1.24	1.10	1.16	1.02	1.09	1.65	1.47	1.55
10.	0.40	1.08	0.52	0.54	0.48	0.51	1.01	0.42	0.75	0.15	0.32	0.24
11.	—	—	—	0.01	0.03	0.02	0.03	—	0.02	—	—	—
12.	1.85	1.41	1.78	1.52	1.89	1.72	4.08	3.58	3.85	3.84	3.82	3.83
(ii)	3.78	4.51	3.92	3.69	4.47	4.11	7.15	5.69	6.48	6.65	6.45	6.54
(iii)	13.61	14.29	13.74	16.25	16.27	16.26	19.95	19.19	19.60	21.93	22.64	22.31
(iv)	12	3	15	18	26	44	18	12	30	19	19	38
(v)	6.50	4.70	6.09	4.73	3.97	4.30	4.22	4.64	4.40	3.67	4.74	4.18

CONSUMER EXPENDITURE

TABLE (2.62) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: EAST INDIA

reference period : month

number of sample blocks : 392 ($s_1 = 196, s_2 = 196$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	8.17	6.81	7.31	7.62	6.86	7.25
2. milk and milk products	1.00	1.78	1.50	3.40	2.96	3.18
3. edible oil	0.81	1.15	1.02	1.02	1.12	1.07
4. meat, egg and fish	2.14	1.93	2.01	1.26	1.83	1.54
5. sugar	0.59	0.69	0.65	0.82	0.58	0.70
6. salt	0.07	0.06	0.06	0.08	0.06	0.07
7. other food	4.45	4.47	4.46	5.62	4.14	4.89
(i) food total	17.23	16.89	17.01	19.82	17.55	18.70
8. clothing	2.82	0.96	1.64	2.35	2.26	2.31
9. fuel and light	1.50	1.98	1.80	1.39	1.45	1.42
10. rent	0.47	1.76	1.28	0.58	2.22	1.39
11. taxes	0.08	—	0.03	0.02	0.14	0.08
12. miscellaneous	4.58	4.13	4.29	6.77	6.55	6.66
(ii) non-food total	9.45	8.83	9.04	11.11	12.62	11.86
(iii) total	26.68	25.72	26.05	30.93	30.17	30.56
(iv) number of sample households	16	20	36	26	27	53
(v) average household size	2.80	3.38	3.14	3.45	4.28	3.81

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	8.25	6.84	7.45	7.47	8.16	7.84	9.04	8.16	8.68	7.10	6.94	7.01
2.	3.44	4.25	3.90	4.61	5.70	5.19	8.05	7.97	8.02	2.53	2.38	2.45
3.	1.02	1.15	1.10	1.43	1.07	1.24	1.68	1.76	1.71	0.87	0.88	0.87
4.	2.20	2.48	2.36	5.29	1.95	3.50	4.24	7.02	5.38	1.88	1.66	1.77
5.	0.62	0.85	0.75	1.12	1.22	1.18	1.23	1.56	1.37	0.60	0.58	0.59
6.	0.07	0.08	0.08	0.07	0.05	0.06	0.08	0.10	0.09	0.07	0.06	0.06
7.	5.52	5.81	5.68	8.50	6.93	7.66	9.62	11.43	10.36	4.46	4.18	4.32
(i)	21.12	21.46	21.32	28.49	25.08	26.67	33.94	38.00	35.61	17.51	16.68	17.07
8.	3.88	1.52	2.54	2.30	4.28	3.36	8.78	5.33	7.36	2.17	1.53	1.84
9.	1.74	1.98	1.88	2.48	1.91	2.18	3.28	3.13	3.21	1.55	1.51	1.53
10.	1.81	1.97	1.90	2.53	1.12	1.78	9.56	2.56	6.68	1.58	1.04	1.30
11.	—	0.10	0.06	0.00	0.69	0.37	0.64	0.18	0.45	0.07	0.12	0.10
12.	9.34	10.82	10.18	12.19	15.73	14.08	31.43	35.48	33.10	7.18	7.00	7.08
(ii)	16.77	16.39	16.56	19.50	23.73	21.77	53.69	46.68	50.80	12.55	11.20	11.85
(iii)	37.89	37.85	37.88	47.99	48.81	48.44	87.63	84.68	86.41	30.06	27.88	28.92
(iv)	20	20	40	20	23	43	33	25	58	196	195	391
(v)	3.84	4.55	4.21	3.33	4.33	3.80	2.76	2.81	2.78	3.85	4.22	4.04

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.63): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : SOUTH INDIA

reference period : month

number of sample blocks : 462 ($s_1 = 232, s_2 = 230$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.19	3.14	3.17	4.32	4.55	4.46	5.02	4.74	4.87
2. milk and milk products	0.18	0.04	0.12	0.36	0.39	0.38	0.69	0.73	0.71
3. edible oil	0.12	0.25	0.18	0.33	0.28	0.30	0.36	0.58	0.48
4. meat, egg and fish	0.15	0.19	0.17	0.53	0.43	0.47	0.63	0.52	0.57
5. sugar	0.07	0.03	0.05	0.12	0.11	0.11	0.21	0.19	0.20
6. salt	0.04	0.04	0.04	0.03	0.04	0.03	0.05	0.04	0.04
7. other food	0.74	1.17	0.94	1.20	1.54	1.41	1.94	1.77	1.84
(i) food total	4.49	4.86	4.67	6.89	7.34	7.16	8.90	8.57	8.71
8. clothing	0.16	0.21	0.18	0.32	0.25	0.28	0.42	0.38	0.40
9. fuel and light	0.57	0.64	0.60	0.77	0.80	0.79	0.90	1.14	1.03
10. rent	0.04	0.06	0.05	0.21	0.16	0.18	0.10	0.24	0.18
11. taxes	—	0.09	0.04	0.01	0.03	0.02	0.02	0.23	0.14
12. miscellaneous	0.59	0.72	0.65	1.18	1.12	1.14	1.62	1.46	1.54
(ii) non-food total	1.36	1.72	1.52	2.49	2.36	2.41	3.06	3.45	3.29
(iii) total	5.85	6.58	6.19	9.38	9.70	9.57	11.96	12.02	12.00
(iv) number of sample households	24	19	43	26	35	61	25	28	53
(v) average household size	6.66	5.79	6.23	5.82	5.21	5.44	5.67	5.26	5.44

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.05	5.44	5.26	5.38	5.36	5.37	5.92	5.40	5.72	5.94	6.39	6.16
2.	0.73	0.60	0.66	1.06	1.01	1.03	1.06	1.75	1.33	1.71	2.11	1.91
3.	0.57	0.45	0.50	0.37	0.61	0.52	0.82	0.40	0.66	0.51	0.86	0.68
4.	0.62	0.65	0.63	0.78	0.47	0.59	0.94	1.06	0.99	0.91	1.21	1.06
5.	0.28	0.19	0.23	0.22	0.38	0.32	0.28	0.31	0.29	0.37	0.41	0.39
6.	0.07	0.05	0.06	0.04	0.04	0.04	0.04	0.06	0.05	0.04	0.03	0.04
7.	2.77	2.66	2.71	3.00	3.07	3.04	4.33	3.42	3.98	3.68	3.67	3.67
(i)	10.09	10.04	10.05	10.85	10.94	10.91	13.39	12.40	13.02	13.16	14.68	13.91
8.	0.71	0.31	0.49	1.44	1.38	1.40	0.84	0.97	0.89	1.24	0.32	0.79
9.	0.97	1.12	1.05	1.23	1.14	1.17	1.36	1.35	1.36	1.26	1.46	1.36
10.	0.40	0.19	0.28	0.13	0.20	0.17	0.59	0.87	0.70	0.75	1.08	0.91
11.	0.01	0.02	0.02	—	0.02	0.01	0.00	—	0.00	0.00	0.11	0.06
12.	1.99	2.44	2.24	2.77	2.53	2.62	3.03	3.62	3.26	5.93	4.77	5.36
(ii)	4.08	4.08	4.08	5.57	5.27	5.37	5.82	6.81	6.21	9.18	7.74	8.48
(iii)	14.17	14.12	14.13	16.42	16.21	16.28	19.21	19.21	19.23	22.34	22.42	22.39
(iv)	15	21	36	14	26	40	22	14	36	19	13	32
(v)	5.54	5.16	5.32	4.85	4.86	4.85	3.78	4.01	3.86	4.04	5.46	4.63

CONSUMER EXPENDITURE

TABLE (2.63) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : SOUTH INDIA

reference period : month

number of sample blocks : 462 ($s_1 = 232$, $s_2 = 230$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	5.24	5.63	5.45	6.73	6.08	6.46
2. milk and milk products	2.20	2.01	2.10	1.50	1.64	1.56
3. edible oil	1.10	0.70	0.88	1.49	0.93	1.26
4. meat, egg and fish	1.47	0.68	1.04	1.68	1.58	1.64
5. sugar	0.70	0.62	0.66	0.85	0.63	0.76
6. salt	0.04	0.06	0.05	0.09	0.07	0.08
7. other food	4.86	4.97	4.92	6.58	5.44	6.11
(i) food total	15.61	14.67	15.10	18.92	16.37	17.87
8. clothing	2.63	2.77	2.71	2.09	1.50	1.85
9. fuel and light	1.90	1.61	1.74	3.06	2.67	2.90
10. rent	0.76	0.92	0.85	0.46	0.68	0.55
11. taxes	0.10	0.17	0.14	0.04	0.12	0.07
12. miscellaneous	4.40	4.96	4.70	7.58	9.87	8.53
(ii) non-food total	9.79	10.43	10.14	13.23	14.84	13.90
(iii) total	25.40	25.10	25.24	32.15	31.21	31.77
(iv) number of sample households	14	16	30	17	13	30
(v) average household size	5.02	5.12	5.07	3.28	4.58	3.72

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above			s. 1	s. 2	comb.
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.			
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	7.90	5.62	6.84	7.70	7.34	7.55	12.23	7.68	10.04	5.66	5.15	5.40
2.	3.35	3.76	3.54	4.62	5.19	4.86	9.46	7.17	8.35	1.69	1.48	1.58
3.	1.55	1.03	1.31	1.19	1.20	1.19	1.48	1.16	1.33	0.69	0.58	0.63
4.	1.41	1.40	1.41	1.51	1.22	1.39	2.23	4.14	3.16	0.89	0.83	0.86
5.	0.78	1.01	0.88	0.70	1.21	0.91	1.10	1.17	1.14	0.38	0.37	0.38
6.	0.06	0.05	0.06	0.06	0.05	0.06	0.05	0.06	0.06	0.05	0.04	0.05
7.	6.05	6.47	6.24	6.39	7.18	6.72	12.80	11.24	12.05	3.65	3.31	3.48
(i)	21.10	19.34	20.28	22.17	23.39	22.68	39.35	32.62	36.13	13.01	11.76	12.38
8.	2.44	3.03	2.71	4.82	5.13	4.95	8.17	5.04	6.66	1.56	1.19	1.37
9.	2.12	2.21	2.16	2.37	2.68	2.50	3.02	3.60	3.30	1.40	1.37	1.38
10.	1.76	2.01	1.88	0.87	1.43	1.10	6.80	4.34	5.61	0.77	0.67	0.72
11.	0.10	0.15	0.12	0.19	—	0.11	0.28	0.83	0.54	0.04	0.12	0.08
12.	10.35	11.17	10.73	16.32	14.98	15.77	23.85	30.05	26.84	5.06	4.75	4.90
(ii)	16.77	18.57	17.60	24.57	24.22	24.43	42.12	43.86	42.95	8.83	8.10	8.45
(iii)	37.87	37.91	37.88	46.74	47.61	47.11	81.47	76.48	79.08	21.84	19.86	20.83
(iv)	18	17	35	15	14	29	23	14	37	232	230	462
(v)	3.22	4.59	3.74	5.17	4.64	4.93	2.52	3.52	2.92	4.61	4.98	4.79

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.64) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : WEST INDIA

reference period : month

number of sample blocks : 391 ($s_1 = 196, s_2 = 195$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	2.67	3.23	2.82	3.65	3.70	3.68	4.00	3.67	3.83
2. milk and milk products	0.46	0.38	0.44	0.78	0.66	0.72	1.83	1.28	1.55
3. edible oil	0.15	0.20	0.16	0.37	0.53	0.46	0.53	0.47	0.50
4. meat, egg and fish	0.19	0.28	0.21	0.18	0.13	0.15	0.34	0.41	0.38
5. sugar	0.31	0.20	0.28	0.62	0.56	0.59	0.55	0.71	0.63
6. salt	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.04	0.03
7. other food	0.89	0.96	0.91	1.63	1.50	1.55	1.64	1.78	1.71
(i) food total	4.70	5.28	4.85	7.27	7.11	7.18	8.91	8.36	8.63
8. clothing	0.10	—	0.07	0.10	0.06	0.08	0.04	0.52	0.29
9. fuel and light	0.54	0.50	0.53	1.21	1.38	1.31	1.11	1.38	1.25
10. rent	—	—	—	—	0.26	0.14	0.36	0.15	0.26
11. taxes	—	—	—	—	0.02	0.01	—	0.03	0.02
12. miscellaneous	0.80	0.69	0.77	1.10	0.84	0.95	1.36	1.40	1.38
(ii) non-food total	1.44	1.19	1.37	2.41	2.56	2.49	2.87	3.48	3.20
(iii) total	6.14	6.47	6.22	9.68	9.67	9.67	11.78	11.84	11.83
(iv) number of sample households	8	2	10	11	16	27	11	13	24
(v) average household size	5.88	7.15	6.18	5.26	4.61	4.88	5.74	4.94	5.30

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	4.19	3.71	4.00	4.16	3.96	4.05	4.23	5.00	4.78	5.36	4.50	5.07
2.	0.97	1.33	1.12	1.90	2.15	2.03	1.29	2.12	1.88	2.73	2.29	2.58
3.	0.60	0.53	0.57	0.64	0.73	0.69	1.12	1.12	1.12	0.74	1.08	0.85
4.	0.42	0.50	0.45	0.32	0.15	0.23	0.84	0.56	0.64	0.26	0.77	0.43
5.	0.78	0.93	0.84	1.05	0.99	1.02	1.20	1.13	1.15	1.24	1.11	1.20
6.	0.03	0.04	0.04	0.05	0.03	0.04	0.03	0.04	0.04	0.04	0.04	0.04
7.	3.02	2.15	2.66	2.64	2.44	2.54	4.36	3.36	3.65	3.48	3.75	3.57
(i)	10.01	9.19	9.68	10.76	10.45	10.60	13.07	13.33	13.26	13.85	13.54	13.74
8.	0.03	0.53	0.23	0.77	0.90	0.84	0.57	0.56	0.56	2.04	3.11	2.41
9.	1.50	1.67	1.57	1.51	1.91	1.72	2.02	1.83	1.88	1.82	1.86	1.83
10.	0.41	0.09	0.28	0.50	0.73	0.62	0.40	1.29	1.04	1.26	0.47	0.99
11.	0.04	—	0.03	0.02	0.02	0.02	—	0.02	0.02	0.19	—	0.12
12.	2.24	2.75	2.45	2.89	2.95	2.92	3.68	2.64	2.94	3.59	2.82	3.33
(ii)	4.22	5.04	4.56	5.69	6.51	6.12	6.67	6.34	6.44	8.90	8.26	8.68
(iii)	14.23	14.23	14.24	16.45	16.96	16.72	19.74	19.67	19.70	22.75	21.80	22.42
(iv)	11	10	21	19	23	42	7	16	23	15	8	23
(v)	5.18	4.92	5.07	5.26	5.72	5.49	4.78	4.42	4.52	5.02	4.19	4.70

CONSUMER EXPENDITURE

TABLE (2.64) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : WEST INDIA

reference period : month

number of sample blocks : 391 ($s_1 = 196, s_2 = 195$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	4.69	4.89	4.76	5.47	4.94	5.27
2. milk and milk products	3.66	3.29	3.54	3.80	3.52	3.70
3. edible oil	0.66	1.10	0.81	1.31	1.31	1.31
4. meat, egg and fish	0.82	0.61	0.75	0.75	1.30	0.95
5. sugar	1.06	1.17	1.10	1.50	1.70	1.57
6. salt	0.05	0.03	0.04	0.05	0.04	0.04
7. other food	4.19	4.20	4.20	5.21	6.11	5.54
(i) food total	15.13	15.29	15.20	18.09	18.92	18.38
8. clothing	2.72	1.44	2.29	1.46	1.34	1.41
9. fuel and light	2.44	2.26	2.38	2.45	2.06	2.30
10. rent	0.66	0.81	0.71	1.23	1.16	1.21
11. taxes	0.03	0.06	0.04	0.06	0.08	0.07
12. miscellaneous	4.97	5.67	5.21	8.12	7.33	7.82
(ii) non-food total	10.82	10.24	10.63	13.32	11.97	12.81
(iii) total	25.95	25.53	25.83	31.41	30.89	31.19
(iv) number of sample households	21	14	35	27	17	44
(v) average household size	4.08	3.23	3.75	4.49	4.05	4.32

srl. no.	monthly per capita expenditure classes in rupees										all classes	
	34-43			43-55			55 and above					
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	5.55	5.98	5.74	6.65	5.86	6.30	6.05	6.11	6.09	4.73	4.61	4.67
2.	5.07	5.70	5.35	5.72	7.17	6.35	10.26	9.41	9.72	3.04	3.21	3.12
3.	1.30	1.33	1.31	1.76	1.37	1.59	1.77	2.35	2.14	0.88	1.01	0.94
4.	0.69	0.95	0.80	2.44	1.72	2.13	1.63	1.89	1.80	0.64	0.71	0.67
5.	1.62	1.59	1.61	1.78	1.90	1.83	2.16	1.94	2.02	1.14	1.17	1.15
6.	0.04	0.05	0.04	0.05	0.06	0.05	0.06	0.05	0.05	0.04	0.04	0.04
7.	5.55	5.40	5.48	7.04	7.05	7.05	11.68	10.31	10.81	3.97	3.99	3.98
(i)	19.82	21.00	20.33	25.44	25.13	25.30	33.61	32.06	32.63	14.44	14.74	14.57
8.	2.85	3.71	3.24	3.78	3.99	3.87	12.24	9.54	10.52	1.82	2.06	1.94
9.	3.05	2.55	2.83	3.04	2.89	2.98	4.65	4.38	4.48	2.03	2.09	2.06
10.	2.51	1.99	2.28	2.33	2.57	2.43	6.69	3.52	4.67	1.19	1.10	1.15
11.	0.03	0.03	0.03	0.01	—	0.00	—	0.12	0.07	0.04	0.03	0.04
12.	9.55	8.37	9.02	14.29	12.86	13.66	33.62	29.84	31.21	6.15	6.35	6.24
(ii)	17.99	16.65	17.40	23.45	22.31	22.94	57.20	47.40	50.95	11.23	11.63	11.43
(iii)	37.81	37.65	37.73	48.89	47.44	48.24	90.81	79.46	83.58	25.67	26.37	26.00
(iv)	23	29	52	17	16	33	25	30	55	195	194	389
(v)	4.97	3.43	4.14	2.93	3.22	3.05	2.05	2.80	2.47	4.52	4.18	4.35

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.65): CONSUMER EXPENDITURE RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: CENTRAL INDIA

reference period: month

number of sample blocks: 239 ($s_1 = 120, s_2 = 119$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	2.30	2.04	2.11	3.55	3.77	3.63	3.66	3.54	3.59
2. milk and milk products	0.09	0.13	0.12	0.55	0.32	0.47	0.82	0.61	0.70
3. edible oil	0.37	0.36	0.36	0.34	0.34	0.34	0.50	0.51	0.51
4. meat, egg and fish	0.01	0.12	0.09	0.45	0.40	0.43	1.03	0.28	0.61
5. sugar	0.38	0.22	0.27	0.27	0.28	0.28	0.43	0.22	0.31
6. salt	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
7. other food	1.45	1.02	1.15	1.50	1.67	1.56	2.12	2.28	2.21
(i) food total	4.64	3.92	4.13	6.70	6.82	6.75	8.60	7.48	7.97
8. clothing	—	—	—	0.19	0.67	0.36	0.08	0.88	0.52
9. fuel and light	0.61	0.53	0.56	0.82	0.68	0.77	1.10	1.38	1.26
10. rent	0.09	—	0.03	0.28	0.03	0.19	0.28	0.04	0.15
11. taxes	0.49	0.00	0.15	—	0.11	0.04	—	—	—
12. miscellaneous	0.71	0.69	0.70	1.28	1.40	1.32	1.56	2.13	1.88
(ii) non-food total	1.90	1.22	1.44	2.57	2.89	2.68	3.02	4.43	3.81
(iii) total	6.54	5.14	5.57	9.27	9.71	9.43	11.62	11.91	11.78
(iv) number of sample households	6	11	17	23	23	46	10	8	18
(v) average household size	5.62	5.88	5.80	5.68	5.49	5.61	3.94	4.62	4.29

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	3.50	5.88	4.68	5.31	4.71	5.13	6.18	5.14	5.75	5.67	6.02	5.79
2.	1.65	1.03	1.34	0.84	1.55	1.05	2.03	0.75	1.50	1.63	1.32	1.53
3.	0.47	0.62	0.54	0.44	0.69	0.52	0.69	0.62	0.66	0.72	0.69	0.71
4.	0.18	0.32	0.25	0.27	0.28	0.27	0.48	1.15	0.76	0.62	0.65	0.63
5.	0.72	0.42	0.57	0.56	0.61	0.58	0.66	0.38	0.55	0.42	0.90	0.58
6.	0.05	0.04	0.04	0.06	0.04	0.05	0.06	0.07	0.06	0.05	0.06	0.05
7.	2.25	2.37	2.31	2.13	3.21	2.45	2.80	3.45	3.07	2.86	3.49	3.07
(i)	8.82	10.68	9.73	9.61	11.09	10.05	12.90	11.56	12.35	11.35	13.13	12.36
8.	0.63	0.21	0.42	0.70	0.56	0.66	1.05	1.16	1.10	3.55	2.22	3.11
9.	1.14	1.18	1.16	1.15	1.18	1.16	1.34	1.71	1.49	1.38	1.80	1.52
10.	1.11	0.15	0.63	0.35	0.42	0.37	0.53	0.34	0.45	0.91	0.78	0.87
11.	—	—	—	0.11	—	0.08	—	0.52	0.22	0.14	—	0.09
12.	2.15	1.86	2.00	4.04	2.95	3.71	3.32	4.26	3.71	4.35	4.57	4.42
(ii)	5.03	3.40	4.21	6.35	5.11	5.98	6.24	7.99	6.97	10.33	9.37	10.01
(iii)	13.85	14.08	13.94	15.96	16.20	16.03	18.33	19.55	19.32	21.68	22.50	22.37
(iv)	10	11	21	14	9	23	11	9	20	9	8	17
(v)	4.08	3.79	3.93	6.48	4.78	5.86	4.76	3.66	4.24	4.47	3.01	3.85

CONSUMER EXPENDITURE

TABLE (2.65) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : CENTRAL INDIA

reference period : month

number of sample blocks : 239 ($s_1 = 120$, $s_2 = 119$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	4.32	5.24	4.71	4.96	5.94	5.58
2. milk and milk products	2.60	4.19	3.26	4.43	4.31	4.36
3. edible oil	0.97	1.16	1.05	0.70	0.83	0.78
4. meat, egg and fish	0.90	0.59	0.77	0.85	0.83	0.84
5. sugar	0.91	0.99	0.94	0.70	1.26	1.05
6. salt	0.05	0.06	0.05	0.06	0.06	0.06
7. other food	4.43	4.77	4.57	4.68	4.58	4.61
(i) food total	14.18	17.00	15.35	16.38	17.81	17.28
8. clothing	2.65	1.68	2.25	5.24	2.29	3.37
9. fuel and light	1.63	1.51	1.58	2.05	1.76	1.86
10. rent	1.07	0.19	0.70	0.61	0.74	0.69
11. taxes	0.03	—	0.02	0.07	0.11	0.10
12. miscellaneous	5.55	5.36	5.47	5.72	8.32	7.37
(ii) non-food total	10.93	8.74	10.02	13.69	13.22	13.39
(iii) total	25.11	25.74	25.37	30.07	31.03	30.67
(iv) number of sample households	8	5	13	9	14	23
(v) average household size	4.86	3.60	4.24	2.64	2.98	2.84

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	5.41	6.50	5.94	4.60	5.70	5.13	10.20	7.95	8.76	4.49	4.65	4.56
2.	2.48	4.46	3.45	4.72	3.48	4.13	6.35	8.00	7.40	1.51	1.84	1.66
3.	0.68	0.61	0.64	1.57	1.32	1.45	1.75	1.78	1.77	0.58	0.66	0.62
4.	2.00	0.74	1.38	1.77	1.48	1.63	1.99	0.14	0.81	0.63	0.47	0.56
5.	0.78	0.83	0.80	2.15	1.28	1.73	1.55	1.76	1.69	0.59	0.60	0.60
6.	0.05	0.05	0.05	0.08	0.08	0.08	0.08	0.08	0.08	0.05	0.05	0.05
7.	5.23	5.29	5.26	10.49	8.03	9.31	6.60	9.37	8.37	2.82	3.27	3.02
(i)	16.63	18.48	17.52	25.38	21.37	23.46	28.52	29.08	28.88	10.67	11.54	11.07
8.	5.41	2.55	4.01	2.99	0.80	1.94	17.59	4.15	9.01	1.73	1.11	1.45
9.	1.94	1.24	1.60	2.80	3.22	3.52	2.15	1.95	2.02	1.27	1.25	1.26
10.	0.96	0.33	0.65	2.84	1.63	2.26	0.40	2.87	1.97	0.60	0.43	0.52
11.	—	—	—	0.16	0.21	0.18	—	0.02	0.01	0.06	0.06	0.06
12.	12.39	12.14	12.27	14.24	18.46	16.25	30.02	31.82	31.16	4.31	5.52	4.86
(ii)	20.70	16.26	18.53	24.03	24.32	24.15	50.16	40.81	44.17	7.97	8.37	8.15
(iii)	37.33	34.74	36.05	49.41	45.69	47.61	78.68	69.89	73.05	18.64	19.91	19.22
(iv)	7	6	13	7	8	15	6	7	13	120	119	239
(v)	3.18	3.25	3.21	2.04	2.13	2.08	2.36	3.04	2.75	4.49	4.02	4.26

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.66) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH-WEST INDIA

reference period : month

number of sample blocks : 354 ($s_1 = 176, s_2 = 178$)

items	monthly per capita expenditure classes in rupees								
	8-0			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.22	3.75	3.39	4.66	4.18	4.38	3.50	3.79	3.54
2. milk and milk products	0.39	0.06	0.28	1.16	1.38	1.29	1.46	1.94	1.54
3. edible oil	0.20	0.10	0.17	0.26	0.36	0.32	0.39	0.56	0.42
4. meat, egg and fish	0.00	0.02	0.01	0.05	0.06	0.05	0.49	0.20	0.44
5. sugar	0.32	0.02	0.22	0.33	0.37	0.36	0.58	0.64	0.59
6. salt	0.02	0.03	0.02	0.03	0.03	0.03	0.03	0.06	0.03
7. other food	0.80	0.76	0.79	0.75	0.80	0.78	1.46	2.01	1.55
(i) food total	4.95	4.74	4.88	7.24	7.18	7.21	7.91	9.20	8.11
8. clothing	0.27	0.42	0.32	0.04	0.62	0.39	0.94	0.32	0.84
9. fuel and light	0.66	0.51	0.61	0.68	0.58	0.62	1.03	1.36	1.08
10. rent	—	—	—	—	0.00	0.00	0.01	0.09	0.02
11. taxes	0.01	—	0.01	—	—	—	—	—	—
12. miscellaneous	0.63	0.59	0.62	0.55	1.47	1.10	2.00	1.17	1.86
(ii) non-food total	1.57	1.52	1.56	1.27	2.67	2.11	3.98	2.94	3.80
(iii) total	6.52	6.26	6.44	8.51	9.85	9.32	11.89	12.14	11.91
(iv) number of sample households	9	5	14	10	13	23	17	12	29
(v) average household size	5.34	3.71	4.68	5.90	6.68	6.34	5.55	2.26	4.47

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.44	4.78	5.00	4.35	3.98	4.18	4.02	5.05	4.69	4.56	5.61	4.86
2.	2.97	3.22	3.14	3.14	4.10	3.58	3.23	2.89	3.01	5.24	3.79	4.82
3.	0.24	0.36	0.32	0.61	0.48	0.55	0.47	0.76	0.66	0.44	0.32	0.40
4.	0.14	0.11	0.12	0.21	0.12	0.17	0.48	0.35	0.39	0.25	0.28	0.26
5.	0.37	0.62	0.53	0.83	0.69	0.76	0.82	1.01	0.94	0.86	0.77	0.83
6.	0.03	0.03	0.03	0.04	0.05	0.04	0.05	0.05	0.05	0.04	0.04	0.04
7.	1.08	1.97	1.67	1.85	1.79	1.82	1.99	2.37	2.23	2.41	2.24	2.36
(i)	10.27	11.09	10.81	11.03	11.21	11.10	11.06	12.48	11.97	13.80	13.05	13.57
8.	0.33	0.17	0.23	0.66	0.48	0.58	1.74	1.53	1.60	2.16	1.48	1.96
9.	1.48	1.38	1.41	0.92	0.95	0.94	1.31	1.40	1.37	1.04	1.61	1.20
10.	—	—	—	0.18	0.45	0.30	0.30	0.33	0.32	0.33	0.93	0.50
11.	—	—	—	—	0.01	0.01	0.08	0.02	0.04	0.04	0.01	0.03
12.	1.53	1.53	1.53	3.13	2.86	3.01	4.94	3.98	4.32	4.85	5.41	5.01
(ii)	3.34	3.08	3.17	4.89	4.75	4.84	8.37	7.26	7.65	8.42	9.44	8.70
(iii)	13.61	14.17	13.98	15.92	15.96	15.94	19.43	19.74	19.62	22.22	22.49	22.27
(iv)	11	15	26	22	21	43	17	20	37	17	15	32
(v)	4.85	4.56	4.66	6.86	8.29	7.45	5.54	5.17	5.29	5.94	3.70	5.06

CONSUMER EXPENDITURE

TABLE (2.66) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: NORTH-WEST INDIA

reference period : month

number of sample blocks : 354 ($s_1 = 176$, $s_2 = 178$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	5.51	5.79	5.66	5.46	5.46	5.46
2. milk and milk products	3.30	3.64	3.48	6.65	5.85	6.23
3. edible oil	0.46	0.64	0.55	0.63	0.60	0.61
4. meat, egg and fish	0.78	0.13	0.44	0.22	0.43	0.33
5. sugar	0.75	1.13	0.95	1.28	1.00	1.13
6. salt	0.03	0.07	0.05	0.03	0.03	0.03
7. other food	3.31	4.51	3.94	3.06	3.12	3.09
(i) food total	14.14	15.91	15.07	17.33	16.49	16.88
8. clothing	4.11	3.25	3.66	2.34	2.83	2.60
9. fuel and light	1.48	1.63	1.56	1.50	1.65	1.58
10. rent	0.69	0.63	0.66	0.73	0.67	0.70
11. taxes	—	0.08	0.04	0.01	—	0.01
12. miscellaneous	6.38	5.64	5.99	7.32	8.44	7.92
(ii) non-food total	12.66	11.23	11.91	11.90	13.59	12.81
(iii) total	26.80	27.14	26.98	29.23	30.08	29.69
(iv) number of sample households	14	15	29	16	17	33
(v) average household size	4.67	3.46	3.95	4.46	5.02	4.74

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	4.36	5.58	4.84	4.58	5.38	5.17	7.06	5.10	5.80	4.65	4.91	4.78
2.	8.97	5.96	7.77	7.62	10.11	9.46	11.29	12.31	11.95	4.38	4.72	4.56
3.	0.58	0.92	0.72	0.69	0.74	0.73	1.58	0.70	1.01	0.52	0.56	0.54
4.	0.12	0.42	0.24	0.54	1.19	1.02	1.98	1.35	1.58	0.35	0.38	0.36
5.	1.48	1.19	1.36	1.26	1.79	1.65	1.55	1.45	1.48	0.86	0.90	0.88
6.	0.05	0.05	0.05	0.08	0.04	0.05	0.10	0.06	0.08	0.04	0.04	0.04
7.	4.48	4.98	4.67	5.66	6.13	6.01	10.10	7.72	8.56	2.64	3.06	2.85
(i)	20.04	19.10	19.65	20.43	25.38	24.09	33.66	28.69	30.46	13.44	14.57	14.01
8.	2.80	4.62	3.53	6.46	4.62	5.10	8.13	4.91	6.05	1.94	2.04	1.99
9.	2.03	1.80	1.94	1.96	2.50	2.36	4.61	2.94	3.53	1.37	1.49	1.43
10.	0.66	2.67	1.46	4.64	2.54	3.08	3.34	5.41	4.68	0.55	1.04	0.80
11.	0.09	—	0.06	0.02	—	0.01	0.06	0.16	0.12	0.02	0.02	0.02
12.	13.80	9.42	12.06	15.32	13.31	13.83	42.01	32.53	35.90	6.66	7.18	6.93
(ii)	19.38	18.51	19.05	28.40	22.97	24.38	58.15	45.95	50.28	10.54	11.77	11.17
(iii)	39.42	37.61	38.70	48.83	48.35	48.47	91.81	74.64	80.74	23.98	26.34	25.18
(iv)	12	18	30	9	10	19	22	17	39	176	178	354
(v)	4.66	3.82	4.28	2.11	3.81	3.15	2.25	3.21	2.79	4.88	4.61	4.74

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.70) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : ALL INDIA

reference period : month

number of sample blocks : 2102 ($s_1 = 1052$, $s_2 = 1050$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. foodgrains	49.92	49.43	49.68	43.26	45.36	44.41	37.44	37.85	37.62
2. milk and milk products	4.16	1.15	2.75	6.20	5.57	5.80	8.83	7.16	7.98
3. edible oil	3.04	3.76	3.40	3.70	3.40	3.59	3.56	4.49	4.03
4. meat, egg and fish	2.08	2.45	2.27	3.80	2.89	3.27	4.50	3.83	4.11
5. sugar	2.88	1.64	2.26	2.93	2.58	2.74	3.14	2.83	3.02
6. salt	0.48	0.49	0.48	0.33	0.41	0.42	0.34	0.33	0.34
7. other food	14.08	17.35	15.70	14.89	14.02	14.35	14.09	15.56	14.86
(i) food total	76.64	76.27	76.54	75.11	74.23	74.58	71.90	72.05	71.96
8. clothing	2.72	2.45	2.59	1.96	3.71	2.95	3.57	3.74	3.61
9. fuel and light	9.12	9.66	9.38	9.46	8.76	9.07	8.40	9.65	9.07
10. rent	0.64	0.33	0.49	1.95	1.03	1.48	1.36	1.25	1.34
11. taxes	0.80	0.65	0.65	0.00	0.41	0.21	0.17	0.83	0.50
12. miscellaneous	10.80	10.64	10.35	11.52	11.86	11.71	14.60	12.48	13.52
(ii) non-food total	23.36	23.73	23.46	24.89	25.77	25.42	28.10	27.95	28.04
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	58	49	107	85	117	202	82	80	162
(v) average household size	6.10	5.62	5.85	5.61	5.50	5.55	5.44	4.63	5.00

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	33.98	35.46	34.64	30.71	29.54	30.21	29.57	28.07	28.76	26.59	29.40	27.92
2.	8.62	9.98	9.27	11.55	11.49	11.50	8.40	11.48	10.06	11.68	9.52	10.68
3.	3.74	3.47	3.63	3.26	3.89	3.55	3.50	3.89	3.70	2.88	3.39	3.10
4.	3.45	3.18	3.35	2.40	2.80	2.57	4.33	3.28	3.80	2.83	3.62	3.19
5.	3.30	3.40	3.35	3.62	3.65	3.61	2.68	3.99	3.39	3.28	2.73	3.01
6.	0.36	0.28	0.36	0.31	0.24	0.24	0.21	0.26	0.26	0.22	0.22	0.22
7.	17.10	15.85	16.53	14.37	15.26	14.80	16.64	15.83	16.18	14.11	16.62	15.30
(i)	70.55	71.62	71.13	66.22	66.87	66.48	65.33	66.80	66.15	61.59	65.50	63.42
8.	3.52	2.48	2.99	4.91	5.59	5.26	4.53	4.51	4.52	8.18	4.69	6.55
9.	8.62	8.92	8.77	7.25	8.39	7.77	7.32	7.68	7.55	6.51	6.44	6.46
10.	2.95	1.13	2.07	2.09	2.68	2.39	3.14	3.74	3.44	3.10	2.32	2.74
11.	0.14	0.07	0.07	0.18	0.12	0.12	0.10	0.26	0.16	0.45	0.09	0.27
12.	14.22	15.78	14.97	19.35	16.35	17.98	19.58	17.01	18.18	20.17	20.96	20.56
(ii)	29.45	28.38	28.87	33.78	33.13	33.52	34.67	33.20	33.85	38.41	34.50	36.58
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	71	67	138	102	118	220	89	87	176	87	71	158
(v)	5.14	4.79	4.97	5.50	5.05	5.28	4.26	4.40	4.34	4.38	4.99	4.64

CONSUMER EXPENDITURE

TABLE (2.70) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : ALL INDIA

reference period : month

number of sample blocks : 2102 ($s_1 = 1052$, $s_2 = 1050$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	20.97	22.64	21.81	20.31	19.62	20.02
2. milk and milk products	10.96	10.88	10.91	12.95	12.65	12.85
3. edible oil	3.24	3.56	3.40	3.41	3.15	3.29
4. meat, egg and fish	4.05	3.48	3.79	2.76	3.74	3.16
5. sugar	3.28	3.14	3.21	3.44	3.28	3.36
6. salt	0.19	0.23	0.19	0.19	0.16	0.19
7. other food	16.17	16.83	16.51	15.64	14.95	15.36
(i) food total	58.86	60.76	59.82	58.70	57.55	58.23
8. clothing	9.61	7.74	8.70	7.66	6.72	7.24
9. fuel and light	7.02	6.77	6.88	6.72	6.10	6.46
10. rent	2.74	3.87	3.29	2.43	3.87	3.03
11. taxes	0.66	0.85	0.74	0.39	0.26	0.33
12. miscellaneous	21.11	20.01	20.57	24.10	25.50	24.71
(ii) non-food total	41.14	39.24	40.18	41.30	42.45	41.77
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	85	79	164	108	97	205
(v) average household size	4.06	3.86	3.96	3.93	4.04	3.97

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	16.74	16.56	16.65	14.76	14.15	14.47	10.38	8.67	9.53	22.36	22.67	22.50
2.	12.77	12.91	12.84	10.68	13.59	12.14	11.58	11.70	11.65	10.97	10.99	10.98
3.	2.98	2.87	2.94	2.84	2.31	2.58	1.90	1.99	1.95	2.95	3.05	3.00
4.	3.03	3.65	3.31	5.65	3.06	4.35	2.97	3.79	3.38	3.45	3.44	3.42
5.	2.95	2.98	2.96	2.73	3.14	2.94	1.74	2.09	1.91	2.87	2.92	2.91
6.	0.16	0.16	0.16	0.12	0.10	0.12	0.08	0.09	0.08	0.21	0.21	0.21
7.	14.35	15.02	14.66	15.10	14.59	14.84	12.26	12.80	12.52	14.55	14.90	14.73
(i)	52.98	54.15	53.52	51.88	50.94	51.44	40.91	41.13	41.02	57.36	58.18	57.75
8.	8.13	7.88	8.02	9.17	9.86	9.07	10.42	8.58	9.52	7.44	6.53	7.01
9.	6.08	5.75	5.93	5.42	5.17	5.29	4.64	4.45	4.54	6.52	6.53	6.54
10.	4.53	5.11	4.82	4.19	3.41	3.79	6.44	4.87	5.67	3.66	3.43	3.55
11.	0.21	0.21	0.21	0.15	0.62	0.37	0.67	0.32	0.50	0.33	0.34	0.34
12.	28.07	26.90	27.50	29.19	30.90	30.04	36.92	40.65	38.75	24.69	24.99	24.81
(ii)	47.02	45.85	46.48	48.12	49.06	48.56	59.09	58.87	58.98	42.64	41.82	42.25
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	88	100	188	76	79	155	120	104	224	1051	1048	2099
(v)	3.97	3.75	3.86	3.08	3.68	3.36	2.56	2.85	2.70	5.44	4.45	4.45

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.71) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH INDIA

reference period : month

number of sample blocks : 264 ($s_1 = 132$, $s_2 = 132$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	50.14	56.37	53.44	44.41	47.39	46.49	40.28	41.28	40.69
2. milk and milk products	9.56	0.18	2.88	5.98	4.81	5.13	5.70	8.94	7.13
3. edible oil	4.02	2.33	3.04	3.99	2.76	3.14	3.11	5.11	4.03
4. meat, egg and fish	1.38	1.26	1.28	1.77	2.97	2.62	3.54	2.04	2.92
5. sugar	3.46	1.44	2.40	1.66	2.15	1.99	2.85	3.23	3.00
6. salt	0.28	0.36	0.32	0.33	0.41	0.42	0.26	0.34	0.34
7. other food	13.02	17.59	15.36	18.38	12.49	14.14	10.98	15.40	12.96
(i) food total	78.26	79.53	78.72	76.52	72.98	73.93	66.72	76.34	71.07
8. clothing	3.60	1.80	2.72	1.00	5.22	3.98	5.19	4.00	4.64
9. fuel and light	7.89	10.77	9.44	12.29	9.21	10.15	8.04	8.00	7.98
10. rent	1.11	—	0.64	1.99	0.31	0.84	0.52	1.02	0.77
11. taxes	—	—	—	—	—	—	0.60	0.43	0.52
12. miscellaneous	9.14	7.90	8.48	8.20	12.28	11.10	18.93	10.21	15.02
(ii) non-food total	21.74	20.47	21.28	23.48	27.02	26.07	33.28	23.66	28.93
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	9	8	17	8	18	26	14	15	29
(v) average household size	6.40	5.49	5.83	5.65	5.68	5.67	5.90	4.75	5.34

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	37.11	34.21	35.77	27.42	24.27	26.39	31.78	28.49	30.08	25.67	28.10	27.42
2.	11.91	9.87	10.99	14.37	14.58	14.46	11.30	19.03	15.40	14.63	11.27	12.24
3.	3.05	3.34	3.16	3.25	3.65	3.36	3.09	3.38	3.26	2.46	2.78	2.67
4.	1.67	4.54	2.95	1.02	3.41	1.80	1.88	1.38	1.60	0.74	1.80	1.50
5.	2.47	3.55	2.95	2.04	2.63	2.22	2.09	4.76	3.51	3.62	2.69	2.95
6.	0.36	0.28	0.36	0.24	0.24	0.24	0.16	0.25	0.21	0.19	0.18	0.18
7.	14.02	11.92	13.00	12.27	13.86	12.78	14.55	14.01	14.26	12.16	17.86	16.23
(i)	70.59	67.71	69.18	60.61	62.64	61.25	64.94	71.30	68.32	59.47	64.68	63.19
8.	5.52	2.70	4.24	4.51	5.98	4.98	2.30	3.02	2.69	5.71	1.12	2.45
9.	9.37	8.37	8.91	7.28	9.20	7.92	8.27	8.34	8.32	6.08	4.49	4.94
10.	—	—	—	1.38	0.54	1.14	3.14	3.79	3.46	4.18	0.49	1.54
11.	0.51	—	0.29	—	—	—	—	—	—	1.76	—	0.50
12.	14.01	21.22	17.38	26.22	21.64	24.71	21.35	13.55	17.21	22.80	29.22	27.38
(ii)	29.41	32.29	30.82	39.39	37.36	38.75	35.06	28.70	31.68	40.53	35.32	36.81
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	12	7	19	15	13	28	14	16	30	8	8	16
(v)	4.32	6.00	4.95	5.36	4.32	4.98	3.89	4.15	4.02	3.52	8.80	6.10

CONSUMER EXPENDITURE

TABLE (2.71) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH INDIA

reference period : month

number of sample blocks : 264 ($s_1 = 132, s_2 = 132$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. food grains	20.18	22.04	21.01	22.04	29.57	23.23
2. milk and milk products	14.27	14.52	14.39	13.79	14.27	13.85
3. edible oil	3.95	2.86	3.48	2.79	3.77	2.93
4. meat, egg and fish	1.41	2.10	1.70	1.71	1.27	1.65
5. sugar	3.56	2.21	2.94	2.43	1.93	2.34
6. salt	0.20	0.19	0.19	0.16	0.27	0.20
7. other food	14.51	10.86	12.92	12.45	17.74	13.29
(i) food total	58.08	54.78	56.63	55.37	68.82	57.49
8. clothing	2.19	8.85	5.07	10.21	2.43	8.98
9. fuel and light	5.71	4.92	5.38	6.50	7.27	6.61
10. rent	2.62	2.86	2.71	1.68	4.47	2.14
11. taxes	2.78	4.27	3.44	1.48	—	1.25
12. miscellaneous	28.62	24.32	26.77	24.76	17.01	23.53
(ii) non-food total	41.92	45.22	43.37	44.63	31.18	42.51
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	12	9	21	13	9	22
(v) average household size	3.98	5.07	4.38	4.48	2.12	3.80

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	13.54	18.79	16.16	20.08	12.55	16.34	9.91	7.76	9.26	22.85	26.67	24.48
2.	17.11	16.11	15.68	11.79	15.84	13.79	15.74	11.28	14.38	13.29	12.23	12.81
3.	2.70	2.38	2.53	1.79	1.97	1.89	1.91	1.10	1.67	2.74	2.77	2.75
4.	1.82	2.06	1.95	2.11	0.26	1.20	2.49	4.04	2.96	1.91	2.31	2.11
5.	3.11	2.71	2.91	3.23	4.37	3.79	1.95	2.52	2.12	2.49	2.93	2.70
6.	0.14	0.16	0.16	0.15	0.10	0.12	0.07	0.09	0.08	0.17	0.21	0.18
7.	14.03	12.58	13.30	7.80	15.04	11.39	11.74	11.04	11.53	12.51	13.98	13.14
(i)	52.45	54.79	53.59	46.95	50.13	48.52	43.81	37.83	42.00	55.96	61.10	58.17
8.	6.21	8.80	7.52	24.65	12.89	18.82	5.59	13.25	7.91	6.81	6.37	6.64
9.	6.49	7.20	6.85	3.33	5.40	4.35	6.80	4.82	6.19	6.90	6.78	6.86
10.	3.35	5.04	4.21	0.70	1.00	0.85	1.10	4.37	2.09	1.70	2.16	1.88
11.	1.31	0.29	0.80	—	1.32	0.66	2.20	—	1.53	1.25	0.51	0.92
12.	30.19	23.88	27.03	24.37	29.26	26.80	40.50	39.73	40.28	27.38	23.08	25.53
(ii)	47.55	45.21	46.41	53.05	49.87	51.48	56.19	62.17	58.00	44.04	38.90	41.83
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	8	10	18	8	8	16	11	11	22	132	132	264
(v)	3.94	2.24	2.87	2.21	3.63	2.72	3.57	1.59	2.59	4.49	4.54	4.52

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.72): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : EAST INDIA

reference period : month

number of sample blocks : 392 ($s_1 = 196, s_2 = 196$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	57.61	57.73	57.54	51.65	60.34	57.85	47.59	49.57	49.16
2. milk and milk products	0.45	0.00	0.14	0.46	2.45	1.95	6.96	1.81	2.89
3. edible oil	4.48	1.86	2.77	4.79	2.88	3.47	3.78	3.93	3.93
4. meat, egg and fish	3.13	3.60	3.46	4.10	1.38	2.17	2.58	6.84	5.93
5. sugar	1.79	1.07	1.24	1.60	1.49	1.52	1.03	0.63	0.72
6. salt	0.75	0.67	0.69	0.57	0.43	0.54	0.34	0.47	0.40
7. other food	15.97	13.47	14.38	15.28	11.94	12.78	10.57	15.74	14.68
(i) food total	84.18	78.40	80.22	78.45	80.91	80.28	72.85	78.99	77.71
8. clothing	7.31	4.53	5.53	2.05	1.07	1.30	2.49	0.63	1.04
9. fuel and light	6.57	7.07	6.92	7.64	7.89	7.80	8.93	7.24	7.62
10. rent	0.30	—	0.14	3.31	0.43	1.19	4.30	—	0.88
11. taxes	—	—	—	—	0.96	0.76	—	0.08	0.08
12. miscellaneous	1.64	10.00	7.19	8.55	8.74	8.67	11.43	13.06	12.67
(ii) non-food total	15.82	21.60	19.78	21.55	19.09	19.72	27.15	21.01	22.29
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	2	4	6	7	12	19	5	4	9
(v) average household size	4.05	5.09	4.66	4.75	6.54	5.90	4.34	3.58	3.72

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	37.55	35.41	37.12	40.19	40.14	40.16	34.19	36.06	35.00	35.89	36.80	36.40
2.	4.70	5.18	4.80	12.00	5.41	8.49	3.86	4.27	4.03	6.43	6.63	6.54
3.	4.41	5.95	4.66	3.32	4.06	3.69	2.56	3.65	3.06	3.65	3.53	3.59
4.	6.17	3.15	5.60	4.43	6.64	5.60	8.12	5.32	6.89	5.84	4.68	5.20
5.	2.20	3.71	2.48	2.09	1.90	1.97	1.55	1.88	1.66	2.55	1.77	2.11
6.	0.37	0.35	0.36	0.37	0.31	0.37	0.30	0.31	0.31	0.36	0.35	0.36
7.	16.83	14.69	16.45	14.89	14.07	14.45	13.58	18.86	15.97	14.96	17.76	16.49
(i)	72.23	68.44	71.47	77.29	72.53	74.73	64.16	70.35	66.94	69.68	71.52	70.69
8.	3.53	7.14	4.22	4.19	5.10	4.67	4.36	3.49	3.98	4.61	3.71	4.12
9.	7.71	7.00	7.57	5.79	7.62	6.76	5.82	5.32	5.56	7.52	6.49	6.95
10.	2.94	7.56	3.78	3.32	2.95	3.14	5.06	2.19	3.78	0.68	1.41	1.07
11.	—	—	—	0.06	0.18	0.12	0.15	—	0.10	—	—	—
12.	13.59	9.86	12.96	9.35	11.62	10.58	20.45	18.65	19.64	17.51	16.87	17.17
(ii)	27.77	31.56	28.53	22.71	27.47	25.27	35.84	29.65	33.06	30.32	28.48	29.31
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	12	3	15	18	26	44	18	12	30	19	19	38
(v)	6.50	4.70	6.09	4.73	3.97	4.30	4.22	4.64	4.40	3.67	4.74	4.18

CONSUMER EXPENDITURE

TABLE (2.72) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: EAST INDIA

reference period : month

number of sample blocks : 392 ($s_1 = 196$, $s_2 = 196$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	30.62	26.48	28.06	24.64	22.74	23.72
2. milk and milk products	3.75	6.92	5.76	10.99	9.81	10.41
3. edible oil	3.04	4.47	3.92	3.30	3.71	3.50
4. meat, egg and fish	8.02	7.51	7.72	4.07	6.07	5.04
5. sugar	2.21	2.68	2.49	2.65	1.92	2.29
6. salt	0.26	0.23	0.23	0.26	0.20	0.23
7. other food	16.68	17.38	17.12	18.17	13.72	16.00
(i) food total	64.58	65.67	65.30	64.08	58.17	61.19
8. clothing	10.57	3.73	6.30	7.60	7.49	7.56
9. fuel and light	5.62	7.70	6.91	4.49	4.81	4.65
10. rent	1.76	6.84	4.91	1.88	7.36	4.55
11. taxes	0.30	—	0.11	0.06	0.46	0.26
12. miscellaneous	17.17	16.06	16.47	21.89	21.71	21.79
(ii) non-food total	35.42	34.33	34.70	35.92	41.83	38.81
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	16	20	36	26	27	53
(v) average household size	2.80	3.38	3.14	3.45	4.28	3.81

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	21.77	18.07	19.67	15.57	16.72	16.19	10.32	9.64	10.05	23.62	24.89	24.24
2.	9.08	11.23	10.30	9.61	11.68	10.71	9.19	9.41	9.28	8.42	8.54	8.47
3.	2.69	3.04	2.90	2.98	2.19	2.56	1.92	2.08	1.98	2.89	3.16	3.01
4.	5.81	6.55	6.23	11.02	4.00	7.23	4.84	8.29	6.23	6.25	5.95	6.12
5.	1.64	2.25	1.98	2.33	2.50	2.44	1.40	1.84	1.59	2.00	2.08	2.04
5.	0.18	0.21	0.21	0.15	0.10	0.12	0.09	0.12	0.10	0.23	0.21	0.21
7.	14.57	15.35	14.99	17.71	14.20	15.81	10.98	13.50	11.99	14.84	14.99	14.94
(i)	55.74	56.70	56.28	59.37	51.39	55.06	38.74	44.88	41.22	58.25	59.82	59.03
8.	10.24	4.02	6.71	4.79	8.77	6.94	10.02	6.29	8.52	7.22	5.49	6.36
9.	4.59	5.23	4.96	5.17	3.91	4.50	3.74	3.70	3.71	5.16	5.42	5.29
10.	4.78	5.20	5.02	5.27	2.29	3.67	10.91	3.02	7.73	5.26	3.73	4.49
11.	—	0.26	0.16	0.00	1.41	0.76	0.73	0.21	0.62	0.23	0.43	0.35
12.	24.65	28.59	26.87	25.40	32.23	29.07	35.86	41.90	38.30	23.88	25.11	24.48
(ii)	44.26	43.30	43.72	40.63	48.61	44.94	61.26	55.12	58.78	41.75	40.18	40.97
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	20	20	40	20	23	43	33	25	58	196	195	391
(v)	3.84	4.55	4.21	3.33	4.33	3.80	2.76	2.81	2.78	3.85	4.22	4.04

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.73) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : SOUTH INDIA

reference period : month

number of sample blocks : 462 ($s_1 = 232, s_2 = 230$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	54.53	47.72	51.21	46.06	46.91	46.60	41.97	39.43	40.58
2. milk and milk products	3.08	0.61	1.94	3.84	4.02	3.97	5.77	6.07	5.92
3. edible oil	2.05	3.80	2.91	3.52	2.89	3.14	3.01	4.83	4.00
4. meat, egg and fish	2.56	2.89	2.75	5.65	4.43	4.91	5.27	4.33	4.75
5. sugar	1.20	0.45	0.81	1.28	1.13	1.15	1.76	1.58	1.67
6. salt	0.68	0.61	0.65	0.32	0.41	0.31	0.42	0.33	0.34
7. other food	12.65	17.78	15.18	12.79	15.88	14.73	16.22	14.73	15.33
(i) food total	76.75	73.86	75.45	73.46	75.67	74.81	74.42	71.30	72.59
8. clothing	2.74	3.19	2.91	3.41	2.58	2.93	3.51	3.16	3.33
9. fuel and light	9.74	9.73	9.69	8.21	8.25	8.26	7.52	9.48	8.58
10. rent	0.68	0.91	0.81	2.24	1.65	1.88	0.84	2.00	1.50
11. taxes	—	1.37	0.64	0.10	0.31	0.21	0.17	1.91	1.17
12. miscellaneous	10.09	10.94	10.50	12.58	11.54	11.91	13.54	12.15	12.83
(ii) non-food total	23.25	26.14	24.55	26.54	24.33	25.19	25.58	28.70	27.41
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	24	19	43	26	35	61	25	28	53
(v) average household size	6.66	5.79	6.23	5.82	5.21	5.44	5.67	5.26	5.44

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
1.	35.64	38.53	37.23	32.77	33.07	32.99	30.82	28.11	29.75	26.59	28.50	27.51
2.	5.15	4.25	4.67	6.46	6.23	6.33	5.52	9.11	6.92	7.66	9.41	8.53
3.	4.02	3.19	3.54	2.25	3.76	3.19	4.27	2.08	3.43	2.28	3.84	3.04
4.	4.38	4.60	4.46	4.75	21.90	3.62	4.89	5.52	5.14	4.07	5.40	4.73
5.	1.98	1.35	1.63	1.34	2.35	1.97	1.46	1.61	1.51	1.66	1.83	1.74
6.	0.49	0.35	0.42	0.24	0.25	0.25	0.21	0.31	0.26	0.18	0.13	0.18
7.	19.55	18.84	19.18	18.27	18.94	18.67	22.54	17.80	20.70	16.47	16.37	16.39
(i)	71.21	71.11	71.13	66.08	67.05	67.02	69.71	64.54	67.71	58.91	65.48	62.12
8.	5.01	2.19	3.47	8.77	8.51	8.60	4.37	5.05	4.63	5.55	1.43	3.53
9.	6.85	7.93	7.43	7.49	7.03	7.19	7.08	7.03	7.07	5.64	6.51	6.07
10.	2.82	1.35	1.98	0.79	1.23	1.04	3.07	4.53	3.64	3.35	4.82	4.07
11.	0.07	0.14	0.14	—	0.12	0.06	0.00	—	—	0.00	0.49	0.27
12.	14.04	17.28	15.85	16.87	15.61	16.09	15.77	18.85	16.95	26.55	21.27	23.94
(ii)	28.79	28.89	28.87	33.92	32.50	32.98	30.29	35.46	32.29	41.09	34.52	37.88
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	15	21	36	14	26	40	22	14	36	19	13	32
(v)	5.54	5.16	5.32	4.85	4.86	4.85	3.78	4.01	3.86	4.04	5.46	4.63

CONSUMER EXPENDITURE

TABLE (2.73) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: SOUTH INDIA

reference period : month

number of sample blocks : 462 ($s_1 = 232$, $s_2 = 230$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	20.63	22.43	21.59	20.93	19.48	20.34
2. milk and milk products	8.66	8.01	8.32	4.67	5.25	4.91
3. edible oil	4.33	2.79	3.49	4.63	2.98	3.97
4. meat, egg and fish	5.79	2.71	4.12	5.23	5.06	5.16
5. sugar	2.76	2.47	2.62	2.64	2.02	2.39
6. salt	0.16	0.24	0.20	0.28	0.23	0.25
7. other food	19.13	19.80	19.49	20.47	17.43	19.23
(i) food total	61.46	58.45	59.83	58.85	52.45	56.25
8. clothing	10.36	11.04	10.74	6.50	4.81	5.82
9. fuel and light	7.48	6.41	6.89	9.52	8.56	9.13
10. rent	2.99	3.66	3.37	1.43	2.18	1.73
11. taxes	0.39	0.68	0.55	0.12	0.38	0.22
12. miscellaneous	17.32	19.76	18.62	23.58	31.62	26.85
(ii) non-food total	38.54	41.55	40.17	41.15	47.55	43.75
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	14	16	30	17	13	30
(v) average household size	5.02	5.12	5.07	3.28	4.58	3.72

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	20.86	14.82	18.06	16.47	15.42	16.03	15.01	10.04	12.70	25.92	25.93	25.92
2.	8.85	9.92	9.35	9.88	10.90	10.32	11.61	9.38	10.56	7.74	7.45	7.59
3.	4.09	2.72	3.46	2.55	2.52	2.53	1.82	1.52	1.68	3.16	2.92	3.02
4.	3.72	3.69	3.72	3.23	2.56	2.95	2.74	5.41	4.00	4.07	4.18	4.13
5.	2.06	2.66	2.32	1.50	2.54	1.93	1.35	1.53	1.44	1.74	1.86	1.82
6.	0.16	0.13	0.16	0.13	0.11	0.13	0.06	0.08	0.08	0.23	0.20	0.24
7.	15.98	17.07	16.47	13.67	15.08	14.26	15.71	14.70	15.24	16.71	16.67	16.71
(i)	55.72	51.01	53.54	47.43	49.13	48.15	48.30	42.66	45.70	59.57	59.21	59.43
8.	6.44	7.99	7.15	10.31	10.78	10.51	10.03	6.59	8.42	7.14	5.99	6.58
9.	5.60	5.83	5.70	5.07	5.63	5.31	3.71	4.71	4.17	6.41	6.90	6.63
10.	4.65	5.30	4.96	1.86	3.00	2.33	8.35	5.67	7.09	3.53	3.37	3.46
11.	0.26	0.40	0.32	0.41	—	0.23	0.34	1.08	0.68	0.18	0.61	0.38
12.	27.33	29.47	28.33	34.92	31.46	33.47	29.27	39.29	33.94	23.17	23.92	23.52
(ii)	44.28	48.99	46.46	52.57	50.87	51.85	51.70	57.34	54.30	40.43	40.79	40.57
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	18	17	35	15	14	29	23	14	37	232	230	462
(v)	3.22	4.59	3.74	5.17	4.64	4.93	2.52	3.52	2.92	4.61	4.98	4.79

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.74) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : WEST INDIA

reference period : month

number of sample blocks : 391 ($s_1 = 196, s_2 = 195$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. foodgrains	43.49	49.92	45.34	37.71	38.26	38.06	33.96	31.00	32.38
2. milk and milk products	7.49	5.87	7.07	8.06	6.83	7.45	15.53	10.81	13.10
3. edible oil	2.44	3.09	2.57	3.82	5.48	4.76	4.50	3.97	4.23
4. meat, egg and fish	3.09	4.33	3.38	1.86	1.34	1.55	2.89	3.46	3.21
5. sugar	5.05	3.09	4.50	6.40	5.79	6.10	4.67	6.00	5.33
6. salt	0.49	0.46	0.48	0.41	0.31	0.31	0.17	0.34	0.25
7. other food	14.50	14.85	14.63	16.84	15.52	16.02	13.92	15.03	14.45
(i) food total	76.55	81.61	77.97	75.10	73.53	74.25	75.64	70.61	72.95
8. clothing	1.63	—	1.13	1.03	0.62	0.83	0.34	4.39	2.45
9. fuel and light	8.79	7.73	8.52	12.50	14.27	13.55	9.42	11.66	10.57
10. rent	—	—	—	—	2.69	1.45	3.06	1.27	2.20
11. taxes	—	—	—	—	0.21	0.10	—	0.25	0.17
12. miscellaneous	13.03	10.66	12.38	11.37	8.68	9.82	11.54	11.82	11.66
(ii) non-food total	23.45	18.39	22.03	24.90	26.47	25.75	24.36	29.39	27.05
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	8	2	10	11	16	27	11	13	24
(v) average household size	5.88	7.15	6.18	5.26	4.61	4.88	5.74	4.94	5.30

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	29.44	26.07	28.09	25.29	23.35	24.22	21.43	25.42	24.26	23.56	20.64	22.61
2.	6.82	9.35	7.87	11.55	12.68	12.14	6.53	10.78	9.54	12.00	10.51	11.51
3.	4.22	3.72	4.00	3.89	4.30	4.13	5.67	5.69	5.69	3.25	4.96	3.79
4.	2.95	3.51	3.16	1.95	0.88	1.38	4.26	2.85	3.25	1.14	3.53	1.92
5.	5.48	6.54	5.90	6.38	5.84	6.10	6.08	5.75	5.84	5.45	5.09	5.35
6.	0.21	0.28	0.28	0.30	0.18	0.24	0.15	0.20	0.20	0.18	0.18	0.18
7.	21.22	15.11	18.68	16.05	14.39	15.19	22.09	17.08	18.53	15.30	17.20	15.92
(i)	70.34	64.58	67.98	65.41	61.62	63.40	66.21	67.77	67.31	60.88	62.11	61.28
8.	0.21	3.72	1.62	4.68	5.31	5.02	2.89	2.85	2.84	8.97	14.26	10.75
9.	10.54	11.74	11.02	9.18	11.26	10.29	10.23	9.30	9.54	8.00	8.53	8.17
10.	2.88	0.63	1.97	3.04	4.30	3.71	2.03	6.56	5.28	5.54	2.16	4.42
11.	0.28	—	0.21	0.12	0.12	0.12	—	0.10	0.10	0.84	—	0.54
12.	15.75	19.33	17.20	17.57	17.39	17.46	18.64	13.42	14.93	15.77	12.94	14.84
(ii)	29.66	35.42	32.02	34.59	38.38	36.60	33.79	32.23	32.69	39.12	37.89	38.72
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	11	10	21	19	23	42	7	16	23	15	8	23
(v)	5.18	4.92	5.07	5.26	5.72	5.49	4.78	4.42	4.52	5.02	4.19	4.70

CONSUMER EXPENDITURE

TABLE (2.74) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: WEST INDIA

reference period : month

number of sample blocks : 391 ($s_1 = 196, s_2 = 195$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	18.08	19.15	18.43	17.40	15.99	16.90
2. milk and milk products	14.10	12.89	13.71	12.10	11.40	11.86
3. edible oil	2.54	4.31	3.14	4.17	4.24	4.20
4. meat, egg and fish	3.16	2.39	2.90	2.39	4.21	3.05
5. sugar	4.08	4.58	4.26	4.78	5.50	5.03
6. salt	0.19	0.12	0.15	0.16	0.13	0.13
7. other food	16.15	16.45	16.26	16.59	19.78	17.76
(i) food total	58.30	59.89	58.85	57.59	61.25	58.93
8. clothing	10.48	5.64	8.87	4.65	4.34	4.52
9. fuel and light	9.40	8.85	9.21	7.80	6.67	7.37
10. rent	2.54	3.17	2.75	3.92	3.76	3.88
11. taxes	0.12	0.24	0.15	0.19	0.26	0.22
12. miscellaneous	19.16	22.21	20.17	25.85	23.72	25.08
(ii) non-food total	41.70	40.11	41.15	42.41	38.75	41.07
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	21	14	35	27	17	44
(v) average household size	4.08	3.23	3.75	4.49	4.05	4.32

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	14.68	15.89	15.21	13.60	12.35	13.06	6.66	7.69	7.29	18.43	17.49	17.96
2.	13.41	15.15	14.18	11.70	15.11	13.16	11.30	11.84	11.63	11.84	12.17	12.00
3.	3.44	3.53	3.47	3.60	2.89	3.30	1.95	2.96	2.56	3.43	3.83	3.62
4.	1.82	2.52	2.12	4.99	3.63	4.43	1.79	2.38	2.15	2.49	2.69	2.58
5.	4.28	4.22	4.27	3.64	4.01	3.79	2.38	2.44	2.42	4.44	4.44	4.42
6.	0.11	0.13	0.11	0.10	0.13	0.10	0.07	0.06	0.06	0.16	0.15	0.15
7.	14.68	14.34	14.52	14.41	14.85	14.62	12.86	12.98	12.93	15.46	15.13	15.31
(i)	52.42	55.78	53.88	52.04	52.97	52.45	37.01	40.35	39.04	56.25	55.90	56.04
8.	7.54	9.85	8.59	7.73	8.41	8.02	13.48	12.01	12.59	7.09	7.81	7.46
9.	8.07	6.77	7.50	6.22	6.09	6.18	5.12	5.51	5.36	7.91	7.93	7.92
10.	6.64	5.29	6.04	4.77	5.42	5.04	7.37	4.43	5.59	4.64	4.17	4.42
11.	0.08	0.08	0.08	0.02	—	0.00	—	0.15	0.08	0.16	0.11	0.15
12.	25.25	22.23	23.91	29.22	27.11	28.31	37.02	37.55	37.34	23.95	24.08	24.01
(ii)	47.58	44.22	46.12	47.96	47.03	47.55	62.99	59.65	60.96	43.75	44.10	43.96
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	23	29	52	17	16	33	25	30	55	195	194	389
(v)	4.97	3.43	4.14	2.93	3.22	3.05	2.05	2.80	2.47	4.52	4.18	4.35

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.75): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER
EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS: CENTRAL INDIA

reference period : month

number of sample blocks : 239 ($s_1 = 120$, $s_2 = 119$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	35.17	39.69	37.88	38.30	38.83	38.49	31.50	29.72	30.48
2. milk and milk products	1.38	2.53	2.15	5.93	3.30	4.98	7.06	5.12	5.94
3. edible oil	5.66	7.00	6.46	3.67	3.50	3.61	4.30	4.28	4.33
4. meat, egg and fish	0.15	2.33	1.62	4.85	4.12	4.56	8.86	2.35	5.18
5. sugar	5.81	4.28	4.85	2.91	2.88	2.97	3.70	1.85	2.63
6. salt	0.61	0.58	0.54	0.43	0.41	0.42	0.34	0.34	0.34
7. other food	22.17	19.85	20.65	16.19	17.20	16.55	18.24	19.14	18.76
(i) food total	70.95	76.26	74.15	72.28	70.24	71.58	74.01	62.80	67.66
8. clothing	—	—	—	2.05	6.90	3.82	0.69	7.39	4.41
9. fuel and light	9.33	10.31	10.05	8.85	7.00	8.17	9.47	11.59	10.70
10. rent	1.38	—	0.54	3.02	0.31	2.01	2.41	0.34	1.27
11. taxes	7.49	0.00	2.69	—	1.13	0.42	—	—	—
12. miscellaneous	10.85	13.43	12.57	13.80	14.42	14.00	13.43	18.21	15.96
(ii) non-food total	29.05	23.74	25.85	27.72	29.76	28.42	25.99	37.53	32.34
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	6	11	17	23	23	46	10	8	18
(v) average household size	5.62	5.88	5.80	5.68	5.49	5.61	3.94	4.62	4.29

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	25.27	41.76	33.57	33.27	29.07	32.00	33.72	26.29	29.76	26.15	26.76	25.88
2.	11.91	7.32	9.61	5.26	9.57	6.55	11.07	3.84	7.76	7.52	5.87	6.84
3.	3.39	4.40	3.87	2.76	4.26	3.24	3.76	3.17	3.42	3.32	3.07	3.17
4.	1.30	2.27	1.79	1.69	1.73	1.68	2.62	5.88	3.93	2.86	2.89	2.82
5.	5.20	2.98	4.09	3.51	3.77	3.62	3.60	1.94	2.85	1.94	4.00	2.59
6.	0.36	0.28	0.29	0.38	0.25	0.31	0.33	0.36	0.31	0.23	0.27	0.22
7.	16.25	16.84	16.58	13.34	19.81	15.30	15.28	17.65	15.89	13.19	15.50	13.73
(i)	63.68	75.85	69.80	60.21	68.46	62.70	70.38	59.13	63.92	52.35	58.36	55.25
8.	4.55	1.49	3.01	4.39	3.46	4.12	5.73	5.93	5.69	16.37	9.87	13.90
9.	8.23	8.38	8.32	7.20	7.28	7.24	7.31	8.75	7.71	6.37	8.00	6.79
10.	8.01	1.07	4.52	2.19	2.59	2.31	2.89	1.74	2.33	4.20	3.47	3.89
11.	—	—	—	0.69	—	0.50	—	2.66	1.14	0.65	—	0.40
12.	15.53	13.21	14.35	25.32	18.21	23.13	18.11	21.79	19.21	20.06	20.30	19.77
(ii)	36.32	24.15	30.20	39.79	31.54	37.30	34.04	40.87	36.08	47.65	41.64	44.75
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	10	11	21	14	9	23	11	9	20	9	8	17
(v)	4.08	3.79	3.93	6.48	4.78	5.86	4.76	3.66	4.24	4.47	3.01	3.85

CONSUMER EXPENDITURE

TABLE (2.75) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: CENTRAL INDIA

reference period : month

number of sample blocks : 239 ($s_1 = 120$, $s_2 = 119$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	17.20	20.36	18.57	16.49	19.14	18.19
2. milk and milk products	10.35	16.28	12.85	14.73	13.89	14.22
3. edible oil	3.86	4.51	4.14	2.33	2.67	2.54
4. meat, egg and fish	3.58	2.29	3.03	2.83	2.67	2.74
5. sugar	3.62	3.85	3.71	2.33	4.06	3.42
6. salt	0.20	0.23	0.20	0.20	0.19	0.20
7. other food	17.66	18.53	18.01	15.56	14.78	15.03
(i) food total	56.47	66.05	60.50	54.47	57.40	56.34
8. clothing	10.56	6.53	8.87	17.43	7.38	10.99
9. fuel and light	6.49	5.87	6.23	6.82	5.67	6.06
10. rent	4.26	0.74	2.76	2.03	2.38	2.25
11. taxes	0.12	—	0.08	0.23	0.35	0.33
12. miscellaneous	22.10	20.81	21.56	19.02	26.82	24.03
(ii) non-food total	43.53	33.95	39.50	45.53	42.60	43.66
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	8	5	13	9	14	23
(v) average household size	4.86	3.60	4.24	2.64	2.98	2.84

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	14.49	18.71	16.48	9.31	12.48	10.78	12.96	11.37	11.99	24.09	23.35	23.73
2.	6.64	12.84	9.57	9.55	7.62	8.67	8.07	11.45	10.13	8.10	9.24	8.64
3.	1.82	1.76	1.78	3.18	2.89	3.05	2.22	2.55	2.42	3.11	3.31	3.23
4.	5.36	2.13	3.83	3.58	3.24	3.42	2.53	0.20	1.11	3.38	2.36	2.91
5.	2.09	2.39	2.22	4.35	2.80	3.63	1.97	2.52	2.31	3.17	3.01	3.12
6.	0.13	0.14	0.14	0.16	0.18	0.17	0.10	0.11	0.11	0.27	0.25	0.26
7.	14.02	15.23	14.58	21.23	17.56	19.56	8.40	13.41	11.46	15.12	16.44	15.71
(i)	44.55	53.20	48.60	51.37	46.77	49.28	36.25	41.61	39.53	57.24	57.96	57.60
8.	14.49	7.34	11.12	6.05	1.75	4.07	22.36	5.94	12.33	9.28	5.57	7.54
9.	5.20	3.57	4.43	7.69	7.05	7.39	2.73	2.79	2.77	6.81	6.28	6.56
10.	2.57	0.95	1.80	5.75	3.57	4.75	0.51	4.11	2.70	3.22	2.16	2.71
11.	—	—	—	0.32	0.46	0.38	—	0.03	0.01	0.32	0.30	0.31
12.	33.19	34.94	34.05	28.82	40.40	34.13	38.15	45.52	42.66	23.13	27.73	20.28
(ii)	55.45	46.80	51.40	48.63	53.23	50.72	63.75	58.39	60.47	42.76	42.04	42.40
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	7	6	13	7	8	15	6	7	13	120	119	239
(v)	3.18	3.25	3.21	2.04	2.13	2.08	2.36	3.04	2.75	4.49	4.02	4.26

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (2.76): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: NORTH-WEST INDIA

reference period : month

number of sample blocks : 354 ($s_1 = 176, s_2 = 178$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s.2	comb.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. foodgrains	49.38	59.91	52.63	54.76	42.44	47.00	29.44	31.22	29.73
2. milk and milk products	5.98	0.96	4.35	13.63	14.01	13.84	12.28	15.98	12.93
3. edible oil	3.07	1.60	2.64	3.06	3.65	3.43	3.28	4.61	3.53
4. meat, egg and fish	0.00	0.32	0.16	0.59	0.61	0.54	4.12	1.65	3.69
5. sugar	4.91	0.32	3.42	3.88	3.76	3.86	4.88	5.27	4.95
6. salt	0.31	0.48	0.31	0.35	0.30	0.32	0.25	0.49	0.25
7. other food	12.27	12.13	12.27	8.81	8.12	8.37	12.28	16.56	13.01
(i) food total	75.92	75.72	75.78	85.08	72.89	77.36	66.53	75.78	68.09
8. clothing	4.14	6.71	4.97	0.47	6.29	4.18	7.91	2.64	7.05
9. fuel and light	10.12	8.15	9.47	7.99	5.89	6.65	8.66	11.20	9.07
10. rent	—	—	—	—	0.00	0.00	0.08	0.74	0.17
11. taxes	0.15	—	0.16	—	—	—	—	—	—
12. miscellaneous	9.67	9.42	9.62	6.46	14.93	11.81	16.82	9.64	15.62
(ii) non-food total	24.08	24.28	24.22	14.92	27.11	22.64	33.47	24.22	31.91
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	9	5	14	10	13	23	17	12	29
(v) average household size	5.34	3.71	4.68	5.90	6.68	6.34	5.55	2.26	4.47

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	39.97	33.73	35.76	27.33	24.94	26.22	20.69	25.58	23.91	20.52	24.95	21.81
2.	21.82	22.72	22.46	19.72	25.69	22.46	16.62	14.64	15.34	23.58	16.68	21.64
3.	1.76	2.54	2.29	3.83	3.01	3.45	2.42	3.85	3.36	1.98	1.42	1.80
4.	1.03	0.78	0.86	1.32	0.75	1.07	2.47	1.77	1.99	1.13	1.24	1.17
5.	2.72	4.38	3.79	5.21	4.32	4.77	4.22	5.12	4.79	3.87	3.42	3.73
6.	0.22	0.21	0.21	0.25	0.31	0.25	0.26	0.25	0.25	0.18	0.18	0.18
7.	7.94	13.90	11.95	11.62	11.22	11.42	10.24	12.01	11.37	10.85	9.96	10.60
(i)	75.46	78.26	77.32	69.28	70.24	69.64	56.92	63.22	61.01	62.11	58.03	60.93
8.	2.42	1.20	1.65	4.15	3.01	3.64	8.96	7.75	8.15	9.72	6.58	8.80
9.	10.87	9.74	10.09	5.78	5.95	5.90	6.74	7.09	6.98	4.68	7.16	5.39
10.	—	—	—	1.13	2.82	1.88	1.54	1.67	1.63	1.49	4.14	2.25
11.	—	—	—	—	0.06	0.06	0.41	0.10	0.20	0.18	0.04	0.13
12.	11.25	10.80	10.94	19.66	17.92	18.88	25.43	20.17	22.03	21.82	24.05	22.50
(ii)	24.54	21.74	22.68	30.72	29.76	30.36	43.08	36.78	38.99	37.89	41.97	39.07
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	11	15	26	22	21	43	17	20	37	17	15	32
(v)	4.85	4.56	4.66	6.86	8.29	7.45	5.54	5.17	5.29	5.94	3.70	5.06

CONSUMER EXPENDITURE

TABLE (2.76) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: NORTH-WEST INDIA

reference period : month

number of sample blocks : 354 ($s_1 = 176$, $s_2 = 178$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	20.56	21.33	20.98	18.68	18.15	18.39
2. milk and milk products	12.31	13.41	12.90	22.75	19.46	20.98
3. edible oil	1.72	2.36	2.04	2.16	1.99	2.05
4. meat, egg and fish	2.91	0.48	1.63	0.75	1.43	1.11
5. sugar	2.80	4.16	3.52	4.38	3.32	3.81
6. salt	0.11	0.26	0.19	0.10	0.10	0.10
7. other food	12.35	16.62	14.60	10.47	10.37	10.41
(i) food total	52.76	58.62	55.86	59.29	54.82	56.85
8. clothing	15.34	11.97	13.57	8.01	9.41	8.76
9. fuel and light	5.52	6.01	5.78	5.13	5.49	5.32
10. rent	2.57	2.32	2.45	2.50	2.23	2.36
11. taxes	—	0.29	0.15	0.03	—	0.03
12. miscellaneous	23.81	20.79	22.19	25.04	28.05	26.68
(ii) non-food total	47.24	41.38	44.14	40.71	45.18	43.15
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	14	15	29	16	17	33
(v) average household size	4.67	3.46	3.95	4.46	5.02	4.74

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	11.06	14.84	12.51	9.38	11.13	10.67	7.69	6.83	7.18	19.38	18.64	18.99
2.	22.77	15.84	20.08	15.61	20.91	19.52	12.29	16.50	14.81	18.27	17.92	18.11
3.	1.47	2.45	1.86	1.41	1.53	1.51	1.72	0.94	1.25	2.17	2.13	2.14
4.	0.30	1.12	0.62	1.11	2.46	2.10	2.16	1.81	1.96	1.46	1.44	1.43
5.	3.75	3.16	3.51	2.58	3.70	3.40	1.69	1.94	1.83	3.59	3.42	3.49
6.	0.13	0.13	0.13	0.16	0.08	0.10	0.11	0.08	0.10	0.17	0.15	0.16
7.	11.36	13.24	12.07	11.59	12.68	12.40	11.00	10.34	10.60	11.01	11.62	11.32
(i)	50.84	50.78	50.78	41.84	52.49	49.70	36.66	38.44	37.73	56.05	55.32	55.64
8.	7.10	12.28	9.12	13.23	9.56	10.52	8.86	6.58	7.49	8.09	7.74	7.90
9.	5.15	4.79	5.01	4.01	5.17	4.87	5.02	3.94	4.37	5.71	5.66	5.68
10.	1.67	7.10	3.77	9.50	5.25	6.35	3.64	7.25	5.80	2.29	3.95	3.18
11.	0.23	—	0.16	0.04	—	0.02	0.07	0.21	0.15	0.08	0.08	0.08
12.	35.01	25.05	31.16	31.38	27.53	28.54	45.75	43.58	44.46	27.78	27.25	27.52
(ii)	49.16	49.22	49.22	58.16	47.51	50.30	63.34	61.56	62.27	43.95	44.68	44.36
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	12	18	30	9	10	19	22	17	39	176	178	354
(v)	4.66	3.82	4.28	2.11	3.81	3.15	2.25	3.21	2.79	4.88	4.61	4.74

CITIES (BOMBAY, CALCUTTA, DELHI AND MADRAS)

TABLE (3.10) : DISTRIBUTION OF SAMPLE BLOCKS AND HOUSEHOLDS ALLOTTED AND SURVEYED IN URBAN AREAS : CITIES (BOMBAY, CALCUTTA, DELHI AND MADRAS)

cities	number of sample blocks						number of sample households					
	allotted			surveyed			allotted			surveyed		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Bombay	60	60	120	60	60	120	60	60	120	60	60	120
2. Calcutta	68	68	136	68	68	136	68	68	136	68	68	136
3. Delhi	32	32	64	31	32	63	32	32	64	31	32	63
4. Madras	40	40	80	40	40	80	40	40	80	40	40	80
5. all cities	200	200	400	199	200	399	200	200	400	199	200	399

CONSUMER EXPENDITURE

TABLE (3.20): DISTRIBUTION OF SAMPLE HOUSEHOLDS BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : CITIES (BOMBAY, CALCUTTA, DELHI AND MADRAS)

reference period : month

monthly per capita expenditure classes in rupees	sample	Bombay	Calcutta	Delhi	Madras	all cities
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0—8	1 2 combined	— — —	— — —	— — —	3 2 5	3 2 5
8—11	1 2 combined	1 — 1	1 — 1	— — —	1 2 3	3 2 5
11—13	1 2 combined	2 — 2	— — —	2 1 3	2 3 5	6 4 10
13—15	1 2 combined	— 1 1	1 — 1	2 1 3	3 1 4	6 3 9
15—18	1 2 combined	6 4 10	4 3 7	3 2 5	— 6 6	13 15 28
18—21	1 2 combined	2 5 7	8 1 9	1 4 5	5 4 9	16 14 30
21—24	1 2 combined	4 2 6	2 3 5	4 — 4	2 4 6	12 9 21
24—28	1 2 combined	5 5 10	4 11 15	2 4 6	4 4 8	15 24 39
28—34	1 2 combined	9 3 12	8 9 17	1 4 5	2 3 5	20 19 39
34—43	1 2 combined	8 15 23	14 11 25	3 5 8	4 2 6	29 33 62
43—55	1 2 combined	7 8 15	6 11 17	3 4 7	7 5 12	23 28 51
55 and above	1 2 combined	16 17 33	20 19 39	10 7 17	7 4 11	53 47 100
all expenditure classes	1 2 combined	60 60 120	68 68 136	31 32 63	40 40 80	199 200 399
number of sample blocks	1 2 combined	60 60 120	68 68 136	31 32 63	40 40 80	199 200 399

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TABLE (3.30): PERCENTAGE DISTRIBUTION OF ESTIMATED NUMBER OF HOUSEHOLDS
BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : CITIES
(BOMBAY, CALCUTTA, DELHI AND MADRAS)

reference period : month

monthly per capita expenditure classes in rupees	sample	Bombay	Calcutta	Delhi	Madras	all cities
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0—8	1	—	—	—	5.26	0.91
	2	—	—	—	3.79	0.52
	combined	—	—	—	4.62	0.72
8—11	1	2.12	3.18	—	2.80	2.33
	2	—	—	—	5.26	0.72
	combined	1.05	1.61	—	3.88	1.53
11—13	1	3.09	—	8.51	4.93	3.02
	2	—	—	2.57	6.74	1.38
	combined	1.53	—	5.27	5.72	2.21
13—15	1	—	1.85	16.63	6.41	4.27
	2	1.42	—	11.25	3.37	2.91
	combined	0.72	0.94	13.69	5.08	3.59
15—18	1	12.05	5.19	10.83	—	7.15
	2	5.98	5.60	8.84	15.37	7.63
	combined	9.00	5.39	9.75	6.74	7.39
18—21	1	2.99	12.37	3.29	16.78	9.03
	2	7.03	1.67	8.52	9.26	5.56
	combined	5.02	7.08	6.15	13.48	7.30
21—24	1	5.50	1.70	7.93	4.11	4.16
	2	2.28	3.03	—	13.26	3.66
	combined	3.88	2.36	3.60	8.13	3.91
24—28	1	6.27	6.52	7.35	8.72	5.95
	2	12.54	18.39	11.42	8.84	14.06
	combined	9.43	12.39	9.57	8.77	10.48
28—34	1	16.59	12.30	2.71	6.74	11.19
	2	5.32	11.73	8.84	5.69	8.44
	combined	10.91	12.02	6.06	6.28	9.82
34—43	1	9.64	22.89	10.83	12.99	15.49
	2	22.03	17.79	13.67	5.26	16.62
	combined	15.89	20.37	12.38	9.60	16.05
43—55	1	13.31	7.85	9.48	13.82	10.73
	2	13.58	18.40	10.13	11.58	14.52
	combined	13.44	13.06	9.83	12.83	12.62
55 and above	1	28.44	26.15	22.44	17.44	24.77
	2	29.82	23.39	24.76	11.58	23.98
	combined	29.13	24.78	23.70	14.87	24.38
all expenditure classes	1	100.00	100.00	100.00	100.00	100.00
	2	100.00	100.00	100.00	100.00	100.00
	combined	100.00	100.00	100.00	100.00	100.00
number of sample blocks	1	60	68	31	40	199
	2	60	68	32	40	200
	combined	120	136	63	80	399
number of sample households	1	60	68	31	40	199
	2	60	68	68	40	200
	combined	120	136	63	80	399

CONSUMER EXPENDITURE

TABLE (3.40): PERCENTAGE DISTRIBUTION OF ESTIMATED NUMBER OF PERSONS BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : CITIES (BOMBAY, CALCUTTA, DELHI AND MADRAS)

reference period : month

monthly per capita expenditure classes in rupees	sample	Bombay	Calcutta	Delhi	Madras	all cities
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0—8	1	—	—	—	7.01	1.51
	2	—	—	—	2.11	0.35
	combined	—	—	—	4.83	0.91
8—11	1	2.89	5.61	—	2.40	2.97
	2	—	—	—	5.18	0.85
	combined	1.51	2.48	—	3.63	1.89
11—13	1	3.36	—	11.64	4.44	4.34
	2	—	—	0.49	4.44	0.85
	combined	1.76	—	5.62	4.44	2.56
13—15	1	—	3.92	15.64	5.50	5.56
	2	3.48	—	10.83	4.92	4.22
	combined	1.65	1.73	13.05	5.24	4.88
15—18	1	14.93	5.59	27.10	—	11.55
	2	9.32	8.34	25.88	13.40	13.53
	combined	12.27	7.12	26.44	5.96	12.56
18—21	1	5.14	12.51	3.09	15.26	9.02
	2	11.29	2.27	9.57	8.34	7.24
	combined	8.07	6.80	6.59	12.18	8.11
21—24	1	9.42	3.55	9.28	5.35	6.82
	2	6.08	6.66	—	12.25	5.88
	combined	7.83	5.29	4.27	8.43	6.34
24—28	1	5.69	3.47	8.04	9.05	6.26
	2	5.97	20.15	6.97	10.01	11.84
	combined	5.82	12.78	7.46	9.48	9.11
28—34	1	20.34	8.82	1.53	8.99	10.66
	2	6.89	16.90	13.13	7.55	11.97
	combined	13.95	13.33	7.79	8.35	11.33
34—43	1	11.33	25.12	8.84	12.33	15.02
	2	23.49	16.01	11.18	8.08	15.44
	combined	17.11	20.03	10.10	10.44	15.24
43—55	1	13.12	6.79	7.24	20.19	11.58
	2	13.64	12.19	8.27	10.98	11.43
	combined	13.37	9.80	7.79	16.09	11.50
55 and above	1	13.78	24.62	7.60	9.48	14.71
	2	19.84	17.48	13.68	12.74	16.40
	combined	16.66	20.64	10.89	10.93	15.57
all expenditure	1	100.00	100.00	100.00	100.00	100.00
	2	100.00	100.00	100.00	100.00	100.00
	combined	100.00	100.00	100.00	100.00	100.00
number of sample blocks	1	60	68	31	40	199
	2	60	68	32	40	200
	combined	120	136	63	80	399
number of sample households	1	60	68	31	40	199
	2	60	68	32	40	200
	combined	120	136	63	80	399

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TABLE (3.50) : AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : CITIES (BOMBAY, CALCUTTA, DELHI AND MADRAS)

reference period : month

monthly per capita expenditure classes in rupees	sample	Bombay	Calcutta	Delhi	Madras	all cities
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0—8	1	—	—	—	6.22	6.22
	2	—	—	—	2.67	2.67
	combined	—	—	—	4.94	4.94
8—11	1	5.00	5.00	—	4.00	4.79
	2	—	—	—	4.72	4.72
	combined	5.00	5.00	—	4.43	4.78
11—13	1	4.00	—	7.27	4.20	5.42
	2	—	—	1.00	3.16	2.44
	combined	4.00	—	5.60	3.66	4.49
13—15	1	—	6.00	5.00	4.00	4.91
	2	8.00	—	5.00	7.00	5.76
	combined	8.00	6.00	5.00	4.87	5.25
15—18	1	4.55	3.06	13.30	—	6.09
	2	5.11	5.45	15.20	4.18	7.04
	combined	4.74	4.28	14.24	4.18	6.58
18—21	1	6.32	2.87	5.00	4.24	3.76
	2	5.27	5.00	5.83	4.32	5.18
	combined	5.58	3.12	5.63	4.27	4.30
21—24	1	6.30	5.91	6.22	6.08	6.18
	2	8.75	8.05	—	4.43	6.39
	combined	7.02	7.27	6.22	4.90	6.28

CONSUMER EXPENDITURE

TABLE (3.50) (Contd.): AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: CITIES (BOMBAY CALCUTTA, DELHI AND MADRAS)

reference period : month

monthly per capita expenditure classes in rupees	sample	Bombay	Calcutta	Delhi	Madras	all cities
(1)	(2)	(3)	(4)	(5)	(6)	(7)
24—28	1	3.34	1.51	5.82	4.85	3.39
	2	1.56	4.01	3.17	5.43	3.35
	combined	2.15	3.34	4.09	5.10	3.36
28—34	1	4.51	2.04	3.00	6.22	3.59
	2	4.25	5.27	7.71	6.37	5.64
	combined	4.44	3.60	6.75	6.28	4.46
34—43	1	4.32	3.11	4.34	4.43	3.65
	2	3.50	3.29	4.25	7.36	3.69
	combined	3.74	3.19	4.28	5.14	3.67
43—55	1	3.62	2.45	4.06	6.82	4.06
	2	3.29	2.42	4.24	4.54	3.13
	combined	3.46	2.43	4.16	5.92	3.53
55 and above	1	1.78	2.67	1.80	2.54	2.24
	2	2.18	2.74	2.87	5.27	2.72
	combined	1.99	2.70	2.41	3.47	2.47
all expenditure classes	1	3.68	2.84	5.32	4.67	3.77
	2	3.28	3.66	5.19	4.79	3.97
	combined	3.48	3.24	5.25	4.72	3.87
number of sample blocks	1	60	68	31	40	199
	2	60	68	32	40	200
	combined	120	136	63	80	399
number of sample households	1	60	68	31	40	199
	2	60	68	32	40	200
	combined	120	136	63	80	399

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TABLE (3.60) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPEN-
DITURE CLASSES IN URBAN AREAS : CITIES (BOMBAY, CALCUTTA,
DELHI AND MADRAS)

reference period : month

number of sample blocks : 399 ($s_1 = 199$, $s_2 = 200$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.02	2.11	2.85	5.18	3.76	4.85	3.31	4.89	3.58
2. milk and milk products	—	—	—	0.28	0.00	0.22	1.43	0.46	1.27
3. edible oil	0.28	0.13	0.25	0.25	0.35	0.27	0.35	0.85	0.44
4. meat, egg and fish	0.37	0.31	0.36	0.22	0.39	0.26	0.50	1.00	0.59
5. sugar	0.02	—	0.02	0.19	0.19	0.19	0.28	0.32	0.29
6. salt	0.02	0.02	0.02	0.02	0.04	0.03	0.02	0.05	0.02
7. other food	1.69	1.05	1.56	0.55	1.92	0.87	1.55	2.26	1.67
(i) food total	5.40	3.62	5.06	6.69	6.65	6.69	7.44	9.83	7.86
8. clothing	—	—	—	—	—	—	0.58	—	0.49
9. fuel and light	0.85	0.83	0.85	0.24	0.92	0.40	1.05	1.40	1.11
10. rent	0.24	—	0.19	0.98	—	0.75	0.59	—	0.49
11. taxes	—	—	—	—	—	—	—	—	—
12. miscellaneous	0.59	0.45	0.56	1.04	0.99	1.03	2.25	1.41	2.11
(ii) non-food total	1.68	1.28	1.60	2.26	1.91	2.18	4.47	2.81	4.20
(iii) total	7.08	4.90	6.66	8.95	8.56	8.87	11.91	12.64	12.06
(iv) number of sample households	3	2	5	3	2	5	6	4	10
(v) average household size	6.22	2.67	4.94	4.79	4.72	4.78	5.42	2.44	4.49

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.79	5.42	5.62	4.80	4.41	4.59	5.49	5.23	5.37	5.15	4.48	4.83
2.	2.14	2.44	2.27	2.95	2.92	2.93	1.14	2.53	1.77	3.20	1.95	2.61
3.	0.28	0.38	0.32	0.42	0.56	0.49	0.66	0.80	0.72	1.59	0.87	0.72
4.	0.33	0.56	0.43	0.43	0.66	0.56	1.49	0.91	1.23	0.46	1.00	0.72
5.	0.24	0.43	0.33	0.63	0.67	0.65	0.55	0.77	0.65	0.71	0.47	0.60
6.	0.02	0.03	0.03	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.03	0.04
7.	1.57	1.18	1.40	2.06	2.34	2.21	3.75	2.92	3.37	2.86	4.00	3.40
(i)	10.37	10.44	10.40	11.32	11.60	11.47	13.11	13.20	13.15	14.01	12.80	12.92
8.	0.09	—	0.05	0.06	0.14	0.10	0.46	0.42	0.44	0.64	0.65	0.65
9.	1.58	1.75	1.65	0.97	1.08	1.03	1.45	1.48	1.46	1.40	1.51	1.45
10.	0.76	0.43	0.62	0.89	0.63	0.75	1.38	1.28	1.34	1.49	1.26	1.38
11.	—	—	—	—	—	—	0.04	0.04	0.04	—	0.25	0.12
12.	1.12	1.46	1.27	2.80	2.78	2.79	3.76	3.05	3.44	4.26	5.53	4.86
(ii)	3.55	3.64	3.59	4.72	4.63	4.67	7.09	6.27	6.72	7.79	9.20	8.46
(iii)	13.92	14.08	13.99	16.04	16.23	16.14	20.20	19.47	19.87	21.80	22.00	21.38
(iv)	6	3	9	13	15	28	16	14	30	12	9	21
(v)	4.91	5.76	5.25	6.09	7.04	6.58	3.76	5.18	4.30	6.18	6.39	6.28

CONSUMER EXPENDITURE

TABLE (3.60) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITMES OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: CITIES (BOMBAY, CALCUTTA DELHI AND MADRAS)

reference period : month

number of sample blocks : 399 ($s_1 = 199, s_2 = 200$)

items		monthly per capita expenditure classes in rupees					
		24-28			28-34		
		s. 1	s. 2	comb.	s. 1	s. 2	comb.
		(23)	(24)	(25)	(26)	(27)	(28)
(1)	(23)	(24)	(25)	(26)	(27)	(28)	
1. foodgrains	5.51	5.38	5.42	5.06	5.47	5.28	
2. milk and milk products	2.77	2.69	2.72	3.22	3.49	3.37	
3. edible oil	0.75	1.03	0.94	1.07	1.29	1.19	
4. meat, egg and fish	2.37	1.49	1.79	1.60	2.08	1.86	
5. sugar	0.57	0.72	0.67	1.04	0.77	0.89	
6. salt	0.04	0.05	0.05	0.05	0.04	0.05	
7. other food	4.04	4.97	4.66	4.93	4.27	4.58	
(i) food total	16.05	16.33	16.25	16.97	17.41	17.22	
8. clothing	1.88	0.93	1.25	3.22	2.28	2.72	
9. fuel and light	1.76	1.98	1.91	2.37	1.71	2.01	
10. rent	1.69	2.32	2.11	1.62	2.36	2.02	
11. taxes	0.16	0.01	0.06	0.14	0.11	0.12	
12. miscellaneous	4.40	4.43	4.42	7.02	7.56	7.31	
(ii) non-food total	9.89	9.67	9.75	14.37	14.02	14.18	
(iii) total	25.94	26.00	26.00	31.34	31.34	31.40	
(iv) number of sample households	15	24	39	20	19	39	
(v) average household size	3.39	3.35	3.36	3.59	5.64	4.46	

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	6.44	6.32	6.38	5.80	6.53	6.17	11.24	6.84	8.88	6.24	5.68	5.96
2.	4.56	4.98	4.78	6.32	5.15	5.73	8.76	9.50	9.16	4.07	4.45	4.27
3.	1.75	1.34	1.54	1.40	1.43	1.42	1.89	1.57	1.72	1.05	1.11	1.08
4.	1.64	1.44	1.54	2.94	2.92	2.92	4.01	4.53	4.29	1.76	1.98	1.87
5.	1.10	0.98	1.04	1.20	1.39	1.30	1.40	1.56	1.49	0.86	0.94	0.90
6.	0.06	0.05	0.06	0.05	0.05	0.05	0.08	0.08	0.08	0.05	0.05	0.05
7.	6.11	6.00	6.05	7.48	7.16	7.32	12.28	11.71	11.97	5.34	5.62	5.48
(i)	21.66	21.11	21.39	25.19	24.63	24.91	39.66	35.79	37.59	19.37	19.83	19.61
8.	2.73	2.02	2.37	3.65	3.98	3.82	9.30	7.08	8.10	2.78	2.40	2.59
9.	2.05	2.36	2.21	3.22	2.59	2.90	3.89	3.64	3.76	2.11	2.14	2.12
10.	2.62	3.00	2.82	2.93	2.98	2.95	7.46	5.66	6.49	2.54	2.56	2.55
11.	0.11	0.11	0.11	0.20	0.45	0.33	0.54	0.09	0.30	0.15	0.12	0.13
12.	9.38	8.30	8.82	14.46	13.74	14.09	31.69	28.61	30.03	9.92	9.98	9.95
(ii)	16.89	15.79	16.33	24.46	23.74	24.09	52.88	45.08	48.68	17.50	17.20	17.34
(iii)	38.55	36.90	37.72	49.65	48.37	49.00	92.54	80.87	86.27	36.87	37.03	36.95
(iv)	29	33	62	23	28	51	53	47	100	199	200	399
(v)	3.65	3.69	3.67	4.06	3.13	3.53	2.24	2.72	2.47	3.77	3.97	3.87

TABLE (3.61): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY DIFFERENT CITIES: (BOMBAY, CALCUTTA, DELHI AND MADRAS)

items	Bombay						Calcutta			Delhi			Madras			all cities		
	s. 1 s. 2 comb.						s. 1 s. 2 comb.						s. 1 s. 2 comb.					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)			
(1)																		
1. foodgrains	5.49	5.72	5.60	7.00	6.63	6.79	4.76	4.67	4.71	7.68	5.05	6.51	6.24	5.68	5.96			
2. milk and milk products	4.53	5.35	4.92	3.39	3.80	3.62	4.88	4.88	4.88	3.60	3.88	3.72	4.07	4.45	4.27			
3. edible oil	1.08	1.38	1.22	1.22	1.23	1.23	0.64	0.83	0.74	1.18	0.87	1.04	1.05	1.11	1.08			
4. meat, egg and fish	1.86	1.95	1.91	2.90	2.98	2.94	0.83	0.72	0.77	1.00	1.67	1.30	1.76	1.98	1.87			
5. sugar	1.21	1.43	1.32	0.68	0.73	0.71	0.87	0.96	0.92	0.62	0.62	0.62	0.86	0.94	0.90			
6. salt	0.04	0.04	0.04	0.07	0.06	0.06	0.04	0.05	0.04	0.04	0.04	0.04	0.05	0.05	0.05			
7. other food	5.28	6.75	5.98	6.60	5.98	6.25	3.24	3.57	3.42	5.73	6.03	5.86	5.34	5.62	5.48			
(i) food total	19.49	22.62	20.99	21.86	21.41	21.60	15.26	15.68	15.48	19.85	18.16	19.09	19.37	19.83	19.61			
8. clothing	1.85	2.76	2.28	3.76	2.33	2.96	2.17	2.61	2.41	3.32	1.68	2.59	2.78	2.40	2.59			
9. fuel and light	2.12	2.83	2.46	2.14	1.95	2.03	1.73	1.66	1.69	2.42	2.15	2.30	2.11	2.14	2.12			
10. rent	2.09	3.09	2.57	4.12	2.58	3.26	1.26	2.79	2.08	2.24	1.39	1.86	2.54	2.56	2.55			
11. taxes	0.05	0.02	0.04	0.28	0.25	0.26	0.00	0.03	0.02	0.24	0.11	0.18	0.15	0.12	0.13			
12. miscellaneous	10.71	10.43	10.58	13.11	12.10	12.55	7.32	7.41	7.37	7.08	8.43	7.68	9.92	9.98	9.95			
(ii) non-food total	16.82	19.13	17.93	23.41	19.21	21.06	12.48	14.50	13.57	15.30	13.76	14.61	17.50	17.20	17.34			
(iii) total	36.31	41.75	38.92	45.27	40.62	42.66	27.74	30.18	29.05	35.15	31.92	33.70	36.87	37.03	36.95			
(iv) number of sample households	60	60	120	68	68	136	31	32	63	40	40	80	199	200	399			
(v) average household size	3.68	3.28	3.48	2.84	3.66	3.24	5.32	5.19	5.25	4.67	4.79	4.72	3.77	3.97	3.87			

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TABLE (3.70): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: CITIES (BOMBAY, CALCUTTA, DELHI AND MADRAS)

reference period : month

number of sample blocks : 399 ($s_1 = 199, s_2 = 200$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	42.66	43.06	42.80	57.88	43.92	54.68	27.79	38.69	29.68
2. milk and milk products	—	—	—	3.13	0.00	2.48	12.01	3.64	10.53
3. edible oil	3.95	2.65	3.75	2.79	4.09	3.04	2.94	6.72	3.65
4. meat, egg and fish	5.23	6.33	5.41	2.46	4.56	2.93	4.20	7.91	4.89
5. sugar	0.28	—	0.30	2.12	2.22	2.14	2.35	2.53	2.40
6. salt	0.28	0.41	0.30	0.22	0.47	0.34	0.17	0.40	0.17
7. other food	23.87	21.43	23.42	6.15	22.43	9.81	13.01	17.88	13.85
(i) food total	76.27	73.88	75.98	74.75	77.69	75.42	62.47	77.77	65.17
8. clothing	—	—	—	—	—	—	4.87	—	4.06
9. fuel and light	12.01	16.94	12.76	2.68	10.75	4.51	8.82	11.08	9.21
10. rent	3.39	—	2.85	10.95	—	8.46	4.95	—	4.06
11. taxes	—	—	—	—	—	—	—	—	—
12. miscellaneous	8.33	9.18	8.41	11.62	11.56	11.61	18.89	11.15	17.50
(ii) non-food total	23.73	26.12	24.02	25.25	22.31	22.58	37.53	22.23	34.83
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	3	2	5	3	2	5	6	4	10
(v) average household size	6.22	2.67	4.94	4.79	4.72	4.78	5.42	2.44	4.49

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	41.60	38.50	40.17	29.92	27.16	28.44	27.18	26.87	27.03	23.63	20.36	22.58
2.	15.38	17.33	16.23	18.39	17.99	18.15	5.64	12.99	8.91	14.68	8.86	12.21
3.	2.01	2.70	2.29	2.62	3.45	3.04	3.27	4.11	3.62	7.29	3.95	3.37
4.	2.37	3.98	3.07	2.68	4.07	3.47	7.38	4.67	6.19	2.11	4.55	3.37
5.	1.72	3.05	2.36	3.93	4.13	4.03	2.72	3.95	3.27	3.26	2.14	2.81
6.	0.14	0.21	0.21	0.19	0.25	0.25	0.15	0.21	0.20	0.18	0.14	0.19
7.	11.28	8.38	10.01	12.84	14.42	13.69	18.56	15.00	16.96	13.12	18.18	15.90
(i)	74.50	74.15	74.34	70.57	71.47	71.07	64.90	67.80	66.18	64.27	58.18	60.43
8.	0.65	—	0.36	0.37	0.86	0.62	2.28	2.16	2.21	2.94	2.95	3.04
9.	11.34	12.43	11.79	6.05	6.65	6.38	7.18	7.60	7.35	6.42	6.86	6.78
10.	5.46	3.05	4.43	5.55	3.88	4.65	6.83	6.57	6.74	6.83	5.73	6.45
11.	—	—	—	—	—	—	0.20	0.21	0.20	—	1.14	0.56
12.	8.05	10.37	9.08	17.46	17.14	17.28	18.61	15.66	17.32	19.54	25.14	22.74
(ii)	25.50	25.85	25.66	29.43	28.53	28.93	35.10	32.20	33.82	35.73	41.82	39.57
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	6	3	9	13	15	28	16	14	30	12	9	21
(v)	4.91	5.76	5.25	6.09	7.04	6.58	3.76	5.18	4.30	6.18	6.39	6.28

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TABLE (3.70) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER
EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS : CITIES (BOMBAY, CALCUTTA,
DELHI AND MADRAS)

reference period : month

number of sample blocks : 399 ($s_1 = 199$, $s_2 = 200$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	21.24	20.69	20.85	16.15	17.40	16.82
2. milk and milk products	10.68	10.35	10.46	10.27	11.10	10.73
3. edible oil	2.89	3.96	3.62	3.41	4.10	3.79
4. meat, egg and fish	9.14	5.73	6.88	5.11	6.62	5.92
5. sugar	2.20	2.77	2.58	3.32	2.45	2.83
6. salt	0.15	0.19	0.19	0.16	0.13	0.16
7. other food	15.57	19.12	17.92	15.73	13.59	14.59
(i) food total	61.87	62.81	62.50	54.15	55.39	54.84
8. clothing	7.25	3.58	4.81	10.27	7.25	8.66
9. fuel and light	6.78	7.62	7.35	7.56	5.44	6.40
10. rent	6.52	8.92	8.12	5.17	7.51	6.43
11. taxes	0.62	0.04	0.23	0.45	0.35	0.38
12. miscellaneous	16.96	17.03	16.99	22.40	24.06	23.29
(ii) non-food total	38.13	37.19	37.50	45.85	44.61	45.16
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	15	24	39	20	19	39
(v) average household size	3.39	3.35	3.36	3.59	3.64	4.46

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 2	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	16.61	17.12	16.92	11.68	13.50	12.59	12.15	8.46	10.29	16.93	15.33	16.12
2.	11.83	13.60	12.67	12.73	10.65	11.69	9.47	11.75	10.62	11.04	12.02	11.56
3.	4.54	3.63	4.08	2.82	2.96	2.90	2.04	1.94	1.99	2.85	3.00	2.92
4.	4.25	3.90	4.08	5.92	6.04	5.96	4.33	5.60	4.97	4.77	5.35	5.06
5.	2.85	2.66	2.76	2.42	2.87	2.65	1.51	1.93	1.73	2.33	2.54	2.44
6.	0.16	0.14	0.16	0.10	0.10	0.10	0.09	0.10	0.09	0.14	0.14	0.14
7.	15.85	16.26	16.04	15.07	14.80	14.95	13.27	14.48	13.88	14.48	15.17	14.83
(i)	56.19	57.21	56.71	50.74	50.92	50.84	42.86	44.26	43.57	52.54	53.55	53.07
8.	7.08	5.47	6.28	7.35	8.23	7.80	10.05	8.75	9.39	7.54	6.48	7.01
9.	5.32	6.40	5.86	6.49	5.35	5.92	4.20	4.50	4.36	5.72	5.78	5.74
10.	6.80	8.13	7.48	5.90	6.16	6.02	8.06	7.00	7.52	6.89	6.91	6.90
11.	0.29	0.30	0.29	0.40	0.93	0.67	0.58	0.11	0.35	0.41	0.32	0.35
12.	24.32	22.49	23.38	29.12	28.41	28.75	34.24	35.38	34.81	26.90	26.96	26.93
(ii)	43.81	42.79	43.29	49.26	49.08	49.16	57.14	55.74	56.43	47.46	46.45	46.93
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	29	33	62	23	28	51	53	47	100	199	200	399
(v)	3.65	3.69	3.67	4.06	3.13	3.53	2.24	2.72	2.47	3.77	3.97	3.87

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TABLE (3.71): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY DIFFERENT CITIES: (BOMBAY, CALCUTTA, DELHI AND MADRAS)

items	Bombay						Calcutta			Delhi			Madras			all cities		
	Bombay			Calcutta			Delhi			Madras			all cities					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)			
1. foodgrains	15.13	13.70	14.39	15.47	16.32	15.92	17.16	15.47	16.21	21.86	15.82	19.32	16.93	15.33	16.12			
2. milk and milk products	12.48	12.81	12.64	7.49	9.35	8.49	17.59	16.16	16.80	10.24	12.16	11.04	11.04	12.02	11.56			
3. edible oil	2.97	3.31	3.13	2.69	3.03	2.88	2.31	2.75	2.55	3.36	2.73	3.09	2.85	3.00	2.92			
4. meat, egg and fish	5.12	4.67	4.91	6.41	7.34	6.89	2.99	2.39	2.65	2.84	5.23	3.86	4.77	5.35	5.06			
5. sugar	3.33	3.43	3.93	1.50	1.80	1.66	3.14	3.18	3.17	1.76	1.94	1.84	2.33	2.54	2.44			
6. salt	0.11	0.10	0.11	0.15	0.15	0.14	0.14	0.17	0.14	0.11	0.13	0.12	0.14	0.14	0.14			
7. other food	14.54	16.16	15.36	14.58	14.72	14.65	11.68	11.83	11.77	16.30	18.88	17.38	14.48	15.17	14.83			
(i) food total	53.68	54.18	53.93	48.29	52.71	50.63	55.01	51.95	53.29	56.47	56.89	56.65	52.54	53.55	53.07			
8. clothing	5.09	6.61	5.86	8.31	5.74	6.94	7.82	8.65	8.30	9.45	5.26	7.69	7.54	6.48	7.01			
9. fuel and light	5.84	6.78	6.32	4.73	4.80	4.76	6.24	5.50	5.82	6.88	6.74	6.82	5.72	5.78	5.74			
10. rent	5.76	7.40	6.60	9.10	6.35	7.64	4.54	9.24	7.16	6.37	4.35	5.52	6.89	6.91	6.90			
11. taxes	0.14	0.05	0.10	0.62	0.62	0.61	0.00	0.10	0.07	0.68	0.34	0.53	0.41	0.32	0.35			
12. miscellaneous	29.49	24.98	27.19	28.95	29.78	29.42	26.39	24.55	25.36	20.15	26.42	22.79	26.90	26.96	26.93			
(ii) non-food total	46.32	45.82	46.07	51.71	47.29	49.37	44.99	48.04	46.71	43.53	43.11	43.35	47.46	46.45	46.93			
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00			
(iv) number of sample households	60	60	120	68	68	136	31	32	63	40	40	80	199	200	399			
(v) average household size	3.68	3.28	3.48	2.84	3.66	3.24	5.32	5.19	5.25	4.67	4.79	4.72	3.77	3.97	3.87			

APPENDIX A

METHOD OF ESTIMATION

1. The estimates presented are, in general, estimates of ratios like per person expenditure on different items of consumption by monthly per capita expenditure classes or expenditure on different items of consumption expressed as a percentage of total expenditure by monthly per capita expenditure classes. These estimates have been arrived at from estimates of the two variates involved respectively in the numerator and the denominator of the ratio in question.

2. In the rural sector in each ultimate stratum four or a multiple of four villages were selected with replacement with probability proportional to village population. Also in the urban sector four independent systematic samples of blocks were selected in each stratum. For the purpose of tabulation and presentation of results considering the order of selection of villages and systematic samples of blocks in each ultimate stratum, the sample households pertaining to the sample villages and sample blocks were classified into two equal sets—one set constituting sub-sample 1 and the other constituting sub-sample 2.

3. In a particular region (stratum or group of strata defining a state, zone or all India) and a particular expenditure class let there be n_1 and n_2 sample households pertaining respectively to sub-sample 1 and 2. Let the multipliers (or weights for the purpose of estimation) of the n_1 and n_2 sample households be respectively $M_{11}, M_{12}, \dots, M_{1n1}, M_{21}, M_{22}, \dots, M_{2n2}$. Let the number of persons and expenditure on item z in the n_1 and n_2 sample households be respectively

$$h_{11}, z_{11}; h_{12}, z_{12}; \dots h_{1n1}, z_{1n1};$$

and

$$h_{21}, z_{21}; h_{22}, z_{22}; \dots h_{2n2}, z_{2n2};$$

Then expenditure per person on item z for that region and that expenditure class was estimated as :

$$\text{sub-sample 1 : } \frac{\sum_j z_{1j} M_{1j}}{\sum_j h_{1j} M_{1j}}$$

$$\text{sub-sample 2 : } \frac{\sum_j z_{2j} M_{2j}}{\sum_j h_{2j} M_{2j}}$$

$$\text{sub-sample comb.: } \frac{\sum_j z_{1j} M_{1j} + \sum_j z_{2j} M_{2j}}{\sum_j h_{1j} M_{1j} + \sum_j h_{2j} M_{2j}}$$

The multipliers (for weights) for purpose of estimation were defined as under :

In the rural sector in a particular stratum and a particular sub-sample let k be the number of first-stage units (here villages) selected with replacement with

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probability proportional to some measure of the size (here population) of the units. Let $P_1, P_2, \dots, P_k$ be the sizes of the 1st, 2nd, $\dots$, k th selected village. Let the number of households in the i th selected village be N_i ($i = 1, 2, \dots, k$). Since in each selected village only one household was selected, the multiplier M for the sample household in the j th selected village was defined as:

$$M = \frac{1}{k} \cdot \frac{N_j P}{P_j}$$

where P = summation of sizes of all villages in the stratum.

In the urban sector in a particular stratum and a particular sub-sample let k be the number of systematic samples of blocks selected out of B blocks. Let the number of blocks in any systematic sample of blocks be b . Let the number of households in the b blocks of the i th systematic sample be

$$N_{1(i)}, N_{2(i)}, N_{3(i)}, \dots, N_{b(i)}.$$

Since in each sample block only one household was selected, and blocks were selected "after completing the cycle", the multiplier M for the sample household selected in the j th block of the i th systematic sample was defined as

$$M = \frac{1}{k} \cdot \frac{B}{b} \cdot N_{j(i)}.$$

Similarly estimates of other ratios were obtained.

APPENDIX B

TABLES OF ALL INDIA AND NORTH-WEST INDIA EXCLUDING JAMMU AND KASHMIR

Consumer expenditure survey was not conducted in Jammu and Kashmir in the first seven rounds of the National Sample Survey and therefore the All-India and North-West zone tables of these rounds of National Sample Survey did not contain figures for Jammu and Kashmir. For the sake of direct comparison with the results of the seventh and earlier rounds a set of tables has been prepared giving results of the ninth round for the area of India covered by the first seven rounds of the National Sample Survey. These tables are appended here. They differ from the Tables 1.60, 1.66, 1.70, 1.76, 2.60, 2.66, 2.70 and 2.76, given in the main body of tables in that they do not include information for Jammu and Kashmir.

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TABLE (B.1) : DISTRIBUTION OF SAMPLE HOUSEHOLDS, PERCENTAGE OF ESTIMATED HOUSEHOLDS AND PERSONS AND AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS :
NORTH-WEST INDIA AND ALL INDIA (EXCLUDING JAMMU AND KASHMIR)

monthly per capita expenditure classes in rupees	sample	distribution of of sample households		percentage of estimated households		percentage of estimated persons		average number of persons per household	
		North-West India	all India	North-West India	all India	North-West India	all India	North-West India	all India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0—8	1	13	166	18.72	22.16	21.05	24.12	6.15	5.53
	2	14	159	21.95	20.66	24.31	22.14	6.30	5.66
	combined	27	325	20.36	21.43	22.75	23.12	6.24	5.59
8—11	1	13	127	17.55	17.83	20.37	18.69	6.36	5.33
	2	9	146	10.25	18.96	12.75	20.89	7.07	5.84
	combined	22	273	13.83	18.39	16.42	19.81	6.63	5.59
11—13	1	5	87	7.05	11.49	5.71	11.50	4.43	5.09
	2	3	81	3.12	10.39	2.64	10.11	4.81	5.14
	combined	8	168	5.05	10.94	4.12	10.80	4.55	5.11
13—15	1	7	61	7.53	7.94	7.91	8.55	5.75	5.47
	2	3	69	3.73	8.47	4.79	9.00	7.29	5.61
	combined	10	130	5.60	8.20	6.29	8.78	6.27	5.54
15—18	1	9	79	10.38	9.20	14.93	9.84	7.88	5.44
	2	7	67	9.98	9.36	10.53	8.46	6.00	4.77
	combined	16	146	10.18	9.28	12.65	9.14	6.94	5.11
18—21	1	6	67	12.18	8.69	10.43	7.73	4.69	4.52
	2	9	71	11.88	8.85	7.65	8.28	3.66	4.94
	combined	15	138	12.03	8.77	8.98	8.01	4.17	4.73
21—24	1	3	45	3.14	5.56	4.02	5.37	7.02	4.91
	2	10	60	16.68	8.63	13.03	7.66	4.44	4.68
	combined	13	105	10.03	7.08	8.69	6.53	4.84	4.77
24—28	1	7	41	9.58	5.29	4.88	4.72	2.79	4.54
	2	6	40	7.96	5.16	8.01	4.70	5.72	4.81
	combined	13	81	8.75	5.22	6.50	4.71	4.15	4.67
28—34	1	5	41	5.49	5.07	3.47	5.01	3.47	5.02
	2	4	27	5.12	3.41	9.58	3.38	10.64	5.22
	combined	9	68	5.30	4.25	6.64	4.18	6.99	5.10
34—43	1	2	21	1.76	2.69	3.57	1.87	11.09	3.53
	2	5	23	4.44	2.69	3.71	2.27	4.75	4.46
	combined	7	44	3.13	2.69	3.65	2.07	6.50	3.99
43—55	1	2	11	2.33	1.50	2.18	1.01	5.14	3.42
	2	3	12	2.98	1.38	2.61	1.55	4.97	5.95
	combined	5	23	2.66	1.44	2.40	1.28	5.04	4.62
55 and above	1	4	22	4.29	2.58	1.48	1.59	1.89	3.13
	2	3	13	1.91	2.04	0.39	1.56	1.15	3.76
	combined	7	35	3.08	2.31	0.91	1.57	1.66	3.41
all classes	1	76	768	100.00	100.00	100.00	100.00	5.48	5.08
	2	76	768	100.00	100.00	100.00	100.00	5.69	5.28
	combined	152	1536	100.00	100.00	100.00	100.00	5.58	5.18

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (B.2) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN RURAL AREAS : ALL INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample villages : 1544 ($s_1 = 772$, $s_2 = 772$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.10	3.28	3.19	4.86	4.82	4.84	5.75	5.88	5.81
2. milk and milk products	0.23	0.16	0.20	0.54	0.52	0.53	0.71	0.99	0.84
3. edible oil	0.17	0.15	0.16	0.28	0.26	0.27	0.40	0.35	0.38
4. meat, egg and fish	0.11	0.10	0.11	0.18	0.25	0.22	0.35	0.31	0.33
5. sugar	0.08	0.08	0.08	0.23	0.23	0.23	0.28	0.30	0.29
6. salt	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.05	0.06
7. other food	0.75	0.72	0.73	1.17	1.16	1.16	1.46	1.42	1.44
(i) food total	4.48	4.53	4.51	7.31	7.29	7.30	9.01	9.30	9.15
8. clothing	0.17	0.31	0.24	0.47	0.61	0.54	0.76	0.59	0.68
9. fuel and light	0.66	0.50	0.58	0.88	0.82	0.85	1.04	1.02	1.03
10. rent	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	0.50	0.45	0.48	0.87	0.83	0.85	1.21	1.13	1.17
(ii) non-food total	1.33	1.26	1.30	2.24	2.26	2.25	3.01	2.74	2.88
(iii) total	5.81	5.79	5.81	9.55	9.55	9.55	12.02	12.04	12.03
(iv) number of sample households	166	159	325	127	146	273	87	81	168
(v) average household size	5.53	5.66	5.59	5.33	5.84	5.59	5.09	5.14	5.11

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	6.31	6.02	6.16	6.30	6.44	6.37	6.82	7.16	6.99	7.15	8.11	7.72
2.	1.27	1.04	1.15	1.77	1.18	1.49	2.46	1.73	2.08	1.90	2.92	2.50
3.	0.38	0.45	0.42	0.39	0.48	0.44	0.46	0.64	0.56	0.68	0.64	0.66
4.	0.40	0.37	0.39	0.58	0.46	0.53	0.56	0.54	0.55	0.98	0.58	0.74
5.	0.34	0.40	0.37	0.52	0.54	0.53	0.56	0.62	0.59	0.84	0.60	0.70
6.	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.06	0.07	0.07
7.	1.60	1.78	1.68	2.07	2.04	2.04	2.08	2.51	2.30	2.94	2.80	2.85
(i)	10.36	10.12	10.23	11.69	11.20	11.46	13.01	13.27	13.14	14.55	15.72	15.24
8.	1.11	0.86	0.98	1.71	1.29	1.51	1.98	2.04	2.01	2.01	1.73	1.84
9.	1.01	0.99	1.00	0.98	1.33	1.14	1.13	1.04	1.08	1.41	1.25	1.32
10.	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.01	0.02	0.02	0.02
11.	0.04	0.00	0.02	0.01	0.01	0.01	0.03	0.00	0.02	0.03	0.04	0.04
12.	1.58	1.87	1.73	1.97	2.55	2.25	3.15	2.98	3.05	4.55	3.53	3.94
(ii)	3.74	3.72	3.73	4.79	5.18	4.92	6.29	6.07	6.17	8.02	6.57	7.16
(iii)	14.10	13.84	13.96	16.38	16.38	16.38	19.30	19.34	19.31	22.57	22.29	22.40
(iv)	61	69	130	79	67	146	67	71	138	45	60	105
(v)	5.47	5.61	5.54	5.44	4.77	5.11	4.52	4.94	4.73	4.91	4.68	4.77

CONSUMER EXPENDITURE

TABLE (B.2) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: ALL INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample villages : 1544 ($s_1 = 772$, $s_2 = 772$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	8.00	8.06	8.03	9.63	7.66	8.83
2. milk and milk products	2.42	3.15	2.78	2.71	3.22	2.91
3. edible oil	0.71	0.65	0.68	0.86	0.46	0.70
4. meat, egg and fish	1.35	0.61	0.98	1.08	0.95	1.03
5. sugar	0.74	1.00	0.87	0.85	1.18	0.99
6. salt	0.07	0.06	0.07	0.07	0.07	0.07
7. other food	3.09	3.09	3.09	3.19	3.18	3.18
(i) food total	16.38	16.62	16.50	18.39	16.72	17.71
8. clothing	2.82	2.54	2.68	3.81	4.35	4.03
9. fuel and light	1.34	1.66	1.50	1.54	1.36	1.47
10. rent	0.17	0.18	0.18	0.00	0.00	0.00
11. taxes	0.01	0.13	0.07	0.06	0.04	0.05
12. miscellaneous	4.82	4.50	4.66	6.45	7.82	7.00
(ii) non-food total	9.16	9.01	9.09	11.86	13.57	12.55
(iii) total	25.54	25.63	25.59	30.25	30.29	30.26
(iv) number of sample households	41	40	81	41	27	68
(v) average household size	4.54	4.81	4.67	5.02	5.22	5.10

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	9.43	7.12	8.15	9.34	7.90	8.46	11.48	10.42	10.97	5.70	5.71	5.70
2.	3.80	4.86	4.39	4.49	5.61	5.18	3.65	3.62	3.64	1.24	1.31	1.28
3.	0.94	1.20	1.08	0.76	0.90	0.85	1.07	1.90	1.47	0.40	0.42	0.41
4.	0.66	0.88	0.78	1.07	1.37	1.25	2.32	2.99	2.65	0.47	0.42	0.44
5.	1.13	1.20	1.17	1.17	1.74	1.52	0.94	1.02	0.98	0.39	0.44	0.41
6.	0.06	0.08	0.07	0.09	0.08	0.80	0.11	0.12	0.11	0.06	0.06	0.06
7.	4.13	4.11	4.12	3.81	5.19	4.65	5.79	5.99	5.88	1.73	1.80	1.78
(i)	20.15	19.45	19.76	20.73	22.79	21.99	25.36	26.06	25.70	9.99	10.16	10.08
8.	4.75	4.42	4.57	8.40	4.78	6.19	4.29	5.60	4.92	1.31	1.27	1.29
9.	2.22	1.81	1.99	1.80	2.20	2.05	1.46	2.00	1.72	1.01	1.00	1.00
10.	0.19	0.00	0.08	0.00	0.14	0.08	0.27	1.50	0.87	0.02	0.04	0.03
11.	0.04	0.03	0.03	0.02	0.23	0.15	0.11	0.00	0.06	0.02	0.02	0.02
12.	9.41	12.24	10.99	15.23	16.25	15.85	35.99	32.53	34.31	2.68	2.75	2.73
(ii)	16.61	18.50	17.66	25.45	23.60	24.32	42.12	41.63	41.88	5.04	5.08	5.07
(iii)	36.76	37.95	37.42	46.18	46.39	46.31	67.48	67.69	67.58	15.03	15.24	15.15
(iv)	21	23	44	11	12	23	22	13	35	768	768	1536
(v)	3.53	4.46	3.99	3.42	5.95	4.62	3.13	3.76	3.41	5.08	5.28	5.18

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (B.3) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: NORTH-WEST INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month number of sample villages : 152 ($s_1 = 76, s_2 = 76$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	2.50	3.18	2.87	4.22	4.66	4.40	4.78	3.99	4.51
2. milk and milk products	0.32	0.38	0.35	1.65	1.28	1.50	2.18	2.04	2.14
3. edible oil	0.04	0.04	0.04	0.28	0.22	0.25	0.36	0.17	0.30
4. meat, egg and fish	0.01	0.02	0.02	0.04	0.02	0.03	0.00	0.08	0.03
5. sugar	0.11	0.12	0.11	0.48	0.28	0.40	0.72	1.03	0.82
6. salt	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04
7. other food	0.44	0.28	0.37	0.57	0.88	0.70	1.05	1.08	1.06
(i) food total	3.46	4.06	3.80	7.28	7.40	7.32	9.13	8.43	8.90
8. clothing	0.32	0.18	0.24	0.75	0.96	0.83	1.47	1.28	1.41
9. fuel and light	0.98	0.31	0.61	0.88	0.73	0.82	0.96	1.32	1.08
10. rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	0.79	0.24	0.49	0.93	0.65	0.82	0.82	1.58	1.07
(ii) non-food total	2.09	0.73	1.34	2.56	2.34	2.47	3.25	4.18	3.56
(iii) total	5.55	4.79	5.14	9.84	9.74	9.79	12.38	12.61	12.46
(iv) number of sample households	13	14	27	13	9	22	5	3	8
(v) average household size	6.15	6.30	6.24	6.36	7.07	6.63	4.43	4.81	4.55

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.14	4.67	4.95	5.86	5.61	5.75	6.18	5.59	5.92	5.76	7.29	6.95
2.	4.04	3.63	3.88	3.23	3.29	3.25	6.09	2.38	4.45	5.78	6.25	6.15
3.	0.04	0.20	0.10	0.17	0.34	0.24	0.40	0.32	0.36	0.17	0.43	0.37
4.	0.08	0.00	0.05	0.02	0.54	0.24	0.01	0.04	0.02	0.00	0.04	0.03
5.	0.45	0.93	0.64	0.71	0.95	0.82	0.78	0.67	0.73	1.82	0.96	1.16
6.	0.04	0.02	0.04	0.04	0.05	0.04	0.06	0.03	0.04	0.02	0.04	0.04
7.	1.19	1.62	1.36	1.48	1.34	1.43	1.49	1.69	1.60	1.64	1.86	1.80
(i)	10.98	11.07	11.02	11.51	12.12	11.77	15.01	10.72	13.12	15.19	16.87	16.50
8.	0.81	0.53	0.70	1.34	1.28	1.31	1.42	1.94	1.65	2.48	0.80	1.17
9.	0.68	0.31	0.53	0.54	1.06	0.76	1.28	1.07	1.19	1.88	1.55	1.62
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.	0.00	0.00	0.00	0.05	0.00	0.03	0.00	0.00	0.00	0.00	0.12	0.10
12.	1.23	2.38	1.69	1.83	1.90	1.87	2.46	5.58	3.84	2.11	3.44	3.15
(ii)	2.72	3.22	2.92	3.76	4.24	3.97	5.16	8.59	6.68	6.47	5.91	6.04
(iii)	13.70	14.29	13.94	15.27	16.36	15.74	20.17	19.31	19.80	21.66	22.78	22.54
(iv)	7	3	10	9	7	16	6	9	15	3	10	13
(v)	5.75	7.29	6.27	7.88	6.00	6.94	4.69	3.66	4.17	7.02	4.44	4.84

CONSUMER EXPENDITURE

TABLE (B.3) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: NORTH-WEST INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month		number of sample villages : 152 ($s_1 = 76, s_2 = 76$)					
		monthly per capita expenditure classes in rupees					
items		24-28			28-34		
		s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)		(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains		6.35	6.13	6.21	5.99	6.33	6.24
2. milk and milk products		5.31	5.24	5.26	2.81	3.38	3.24
3. edible oil		0.44	0.32	0.36	0.55	0.21	0.30
4. meat, egg and fish		0.02	0.20	0.14	0.78	1.13	1.04
5. sugar		1.70	1.80	1.76	1.98	1.79	1.84
6. salt		0.05	0.04	0.04	0.08	0.07	0.08
7. other food		2.29	2.09	2.18	3.10	3.00	3.01
(i) food total		16.16	15.82	15.95	15.29	15.91	15.75
8. clothing		1.64	3.51	2.83	7.54	1.73	3.20
9. fuel and light		1.39	1.06	1.18	1.93	1.15	1.35
10. rent		0.00	0.00	0.00	0.00	0.00	0.00
11. taxes		0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous		6.34	5.29	5.67	6.20	12.04	10.56
(ii) non-food total		9.37	9.86	9.68	15.67	14.92	15.11
(iii) total		25.53	25.68	25.63	30.96	30.83	30.86
(iv) number of sample households		7	6	13	5	4	9
(v) average household size		2.79	5.72	4.15	3.47	10.64	6.99

monthly per capita expenditure classes in rupees												
srl. no.	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	6.73	7.21	6.81	6.41	6.70	6.57	6.06	13.30	7.63	4.79	5.26	5.03
2.	5.35	10.17	7.90	12.75	13.64	13.25	7.43	20.12	10.21	3.13	3.38	3.26
3.	0.09	0.62	0.37	0.42	0.75	0.60	0.28	2.52	0.77	0.22	0.27	0.24
4.	0.57	0.04	0.29	—	0.12	0.07	0.65	2.61	1.08	0.08	0.21	0.15
5.	2.08	1.62	1.84	3.61	2.90	3.21	0.88	3.76	1.51	0.78	0.88	0.83
6.	0.03	0.10	0.07	0.06	0.04	0.05	0.06	0.11	0.07	0.04	0.04	0.04
7.	2.89	3.83	3.38	2.83	6.51	4.91	4.72	10.05	5.90	1.26	1.61	1.45
(i)	17.38	23.59	20.66	26.08	30.66	28.66	20.08	52.37	27.17	10.30	11.65	11.00
8.	2.16	1.45	1.78	15.70	5.39	9.89	5.14	13.82	7.04	1.65	1.30	1.47
9.	1.97	1.48	1.71	1.97	2.22	2.11	1.72	2.82	1.96	1.06	0.93	0.99
10.	0.00	0.00	0.00	0.00	0.10	0.06	1.76	1.30	1.65	0.03	0.01	0.02
11.	0.00	0.03	0.01	0.00	0.00	0.00	0.08	0.00	0.06	0.01	0.02	0.01
12.	13.41	12.29	12.83	2.07	7.33	5.03	35.02	23.87	32.59	2.68	3.69	3.21
(ii)	17.54	15.25	16.33	19.74	15.04	17.09	43.72	41.18	43.30	5.43	5.95	5.70
(iii)	34.92	38.84	36.99	45.82	45.70	45.75	63.80	94.18	70.47	15.73	17.60	16.70
(iv)	2	5	7	2	3	5	4	3	7	76	76	152
(v)	11.09	4.75	6.50	5.14	4.97	5.04	1.89	1.15	1.66	5.48	5.69	5.58

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TABLE (B.4): CONSUMER EXPENDITURE AS PERCENTAGE TO ITEM-WISE TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : ALL INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month			number of sample villages : 1544 (s ₁ = 772, s ₂ = 772)						
monthly per capita expenditure classes in rupees									
items	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	53.35	56.65	54.91	50.89	50.47	50.69	47.83	48.83	48.30
2. milk and milk product	3.96	2.76	3.44	5.66	5.45	5.55	5.91	8.22	6.99
3. edible oil	2.93	2.59	2.75	2.93	2.72	2.83	3.33	2.91	3.16
4. meat, egg and fish	1.89	1.73	1.89	1.88	2.62	2.30	2.91	2.58	2.74
5. sugar	1.38	1.38	1.38	2.41	2.41	2.41	2.33	2.49	2.41
6. salt	0.69	0.69	0.69	0.52	0.52	0.52	0.50	0.42	0.50
7. other food	12.91	12.44	12.57	12.25	12.14	12.15	12.15	11.79	11.97
(ii) food total	77.11	78.24	77.63	76.54	76.33	76.45	74.96	77.24	76.06
8. clothing	2.93	5.35	4.13	4.92	6.39	5.65	6.32	4.90	5.65
9. fuel and light	11.36	8.64	9.98	9.22	8.59	8.90	8.65	8.47	8.56
10. rent	0.00	0.00	0.00	0.21	0.00	0.10	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	8.60	7.77	8.26	9.11	8.69	8.90	10.07	9.39	9.73
(ii) non-food total	22.89	21.76	22.37	23.46	23.67	23.55	25.04	22.76	23.94
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	166	159	325	127	146	273	87	81	168
(v) average household size	5.53	5.66	5.59	5.53	5.84	5.59	5.09	5.14	5.11

monthly per capita expenditure classes in rupees												
srl. no.	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
1.	44.75	43.51	44.13	38.46	39.32	38.88	35.34	37.01	36.21	31.67	36.39	34.47
2.	9.01	7.52	8.24	10.81	7.20	9.10	12.75	8.95	10.77	8.42	13.10	11.16
3.	2.70	3.25	3.01	2.38	2.93	2.69	2.38	3.31	2.90	3.01	2.87	2.95
4.	2.84	2.67	2.79	3.54	2.81	3.24	2.90	2.79	2.85	4.34	2.60	3.30
5.	2.41	2.89	2.65	3.17	3.30	3.24	2.90	3.21	3.06	3.72	2.69	3.13
6.	0.43	0.43	0.43	0.37	0.37	0.37	0.36	0.36	0.36	0.27	0.31	0.31
7.	11.35	12.86	12.04	12.64	12.45	12.44	10.78	12.98	11.91	13.03	12.56	12.72
(i)	73.49	73.13	73.29	71.37	68.38	69.96	67.41	68.61	68.06	64.46	70.52	68.04
8.	7.87	6.21	7.02	10.44	7.88	9.22	10.26	10.55	10.41	8.91	7.76	8.21
9.	7.16	7.15	7.16	5.98	8.12	6.96	5.85	5.38	5.59	6.25	5.61	5.89
10.	0.00	0.00	0.00	0.12	—	0.06	0.05	0.05	0.05	0.09	0.09	0.09
11.	0.28	0.00	0.14	0.06	0.06	0.06	0.16	0.00	0.10	0.13	0.18	0.18
12.	11.20	13.51	12.39	12.03	15.56	13.74	16.32	15.41	15.79	20.16	15.84	17.59
(ii)	26.51	26.87	26.71	28.63	31.62	30.04	32.59	31.39	31.94	35.54	29.48	31.96
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	61	69	130	79	67	146	67	71	138	45	60	105
(v)	5.47	5.61	5.54	5.44	4.77	5.11	4.52	4.94	4.73	4.91	4.68	4.77

CONSUMER EXPENDITURE

TABLE (B.4) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO ITEM-WISE TOTAL
CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY
PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS: ALL INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month number of sample villages = 1544 ($s_1 = 772$, $s_2 = 772$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	31.31	31.44	31.39	31.83	25.28	29.18
2. milk and milk products	9.40	12.29	10.86	8.96	10.60	9.65
3. edible oil	2.78	2.54	2.66	2.84	1.52	2.31
4. meat, egg and fish	5.29	2.38	3.83	3.57	3.14	3.40
5. sugar	2.90	3.90	3.40	2.81	3.90	3.27
6. salt	0.27	0.23	0.27	0.23	0.23	0.23
7. other food	12.10	12.06	12.80	10.55	10.53	10.48
(i) food total	64.13	64.84	64.49	60.79	55.20	58.52
8. clothing	11.04	9.91	10.47	12.60	14.36	13.32
9. fuel and light	5.25	6.48	5.86	5.09	4.49	4.86
10. rent	0.67	0.70	0.70	0.00	0.00	0.00
11. taxes	0.04	0.51	0.27	0.20	0.13	0.17
12. miscellaneous	18.87	17.56	18.21	21.32	25.82	23.13
(ii) non-food total	35.87	35.16	35.51	39.21	44.80	41.48
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	41	40	81	41	27	68
(v) average household size	4.54	4.81	4.67	5.02	5.22	5.10

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above			s. 1	s. 2	comb.
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.			
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	25.65	18.76	21.78	20.23	17.04	18.27	17.01	15.39	16.24	37.93	37.47	37.62
2.	10.34	12.81	11.73	9.72	12.09	11.19	5.41	5.35	5.38	8.25	8.60	8.45
3.	2.56	3.16	2.89	1.65	1.94	1.84	1.59	2.81	2.18	2.66	2.76	2.71
4.	1.80	2.32	2.08	2.32	2.95	2.70	3.44	4.42	3.99	3.13	2.76	2.90
5.	3.07	3.16	3.13	2.53	3.75	3.28	1.39	1.51	1.45	2.59	2.89	2.71
6.	0.16	0.21	0.19	0.19	0.17	0.17	0.16	0.18	0.16	0.40	0.39	0.40
7.	11.23	10.83	11.01	8.25	11.19	10.04	8.58	8.85	8.70	11.51	11.81	11.75
(i)	54.81	51.25	52.81	44.89	49.13	47.49	37.58	38.51	38.03	66.47	66.68	66.54
8.	12.92	11.65	12.21	18.19	10.30	13.37	6.36	8.27	7.28	8.72	8.33	8.51
9.	6.04	4.77	5.32	3.90	4.74	4.43	2.16	2.95	2.55	6.72	6.56	6.60
10.	0.52	0.00	0.21	0.00	0.30	0.17	0.40	2.22	1.29	0.13	0.26	0.20
11.	0.11	0.08	0.08	0.04	0.50	0.32	0.16	0.00	0.09	0.13	0.13	0.13
12.	25.60	32.25	29.37	32.98	35.03	34.22	53.34	48.05	50.76	17.83	18.04	18.02
(ii)	45.19	48.75	47.19	55.11	50.87	52.51	62.42	61.49	61.97	33.53	33.32	33.46
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	21	23	44	11	12	23	22	13	35	768	768	1536
(v)	3.53	4.46	3.99	3.42	5.95	4.62	3.13	3.76	3.41	5.08	5.28	5.18

TABLE (B.5) : CONSUMER EXPENDITURE AS PERCENTAGE TO ITEM-WISE TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN RURAL AREAS : NORTH-WEST INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample villages : 152 ($s_1 = 76$, $s_2 = 76$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	45.04	66.38	55.83	42.89	47.85	44.93	38.62	31.64	36.19
2. milk and milk products	5.77	7.93	6.81	16.77	13.14	15.32	17.61	16.18	17.17
3. edible oil	0.72	0.84	0.78	2.84	2.36	2.55	2.91	1.35	2.41
4. meat, egg and fish	0.18	0.42	0.39	0.41	0.21	0.31	0.00	0.63	0.24
5. sugar	1.98	2.51	2.14	4.88	2.87	4.09	5.82	8.17	6.58
6. salt	0.72	0.84	0.78	0.41	0.51	0.51	0.32	0.32	0.32
7. other food	7.93	5.84	7.20	5.79	9.03	7.15	8.48	8.56	8.51
(i) food total	62.34	84.76	73.93	73.99	75.97	74.76	73.76	66.85	71.41
8. clothing	5.77	3.76	4.67	7.62	9.87	9.48	11.87	10.15	11.42
9. fuel and light	17.66	6.47	11.87	8.94	7.49	8.38	7.75	10.47	8.67
10. rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	14.23	5.01	9.53	9.45	6.67	8.38	6.62	12.53	8.59
(ii) non-food total	37.66	15.24	26.07	26.01	24.03	25.24	26.24	33.15	28.58
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	13	14	27	13	9	22	5	3	8
(v) average household size	6.15	6.30	6.24	6.36	7.07	6.63	4.43	4.81	4.55

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	37.53	32.67	35.51	38.38	34.29	36.53	30.63	28.94	29.91	26.59	32.00	30.83
2.	29.49	25.40	27.83	21.15	20.11	20.65	30.19	12.33	22.47	26.70	27.44	27.28
3.	0.29	1.40	0.72	1.11	2.08	1.52	1.98	1.66	1.82	0.78	1.89	1.64
4.	0.58	0.00	0.36	0.13	3.30	1.53	0.05	0.21	0.10	0.00	0.18	0.13
5.	3.28	6.51	4.59	4.65	5.81	1.53	3.87	3.47	3.69	8.40	4.21	5.15
6.	0.29	0.14	0.29	0.26	0.31	0.25	0.30	0.16	0.20	0.09	0.18	0.18
7.	8.69	11.34	9.76	9.69	8.19	9.09	7.39	8.75	8.08	7.57	8.16	7.99
(i)	80.15	77.46	79.06	75.37	74.09	74.78	74.41	55.52	66.27	70.13	74.06	73.20
8.	5.91	3.71	5.02	8.78	7.82	8.32	7.04	10.05	8.33	11.45	3.51	5.19
9.	4.96	2.17	3.80	3.54	6.48	4.83	6.35	5.54	6.01	8.68	6.80	7.19
10.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.	0.00	0.00	0.00	0.33	0.00	0.19	0.00	0.00	0.00	0.00	0.53	0.44
12.	8.98	16.66	12.12	11.98	11.61	11.88	12.20	28.89	19.39	9.74	15.10	13.98
(ii)	19.85	22.54	20.94	24.63	25.91	25.22	25.59	44.48	33.73	29.87	25.94	26.80
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	7	3	10	9	7	16	6	9	15	3	10	13
(v)	5.75	7.29	6.27	7.88	6.00	6.94	4.69	3.66	4.17	7.02	4.44	4.84

CONSUMER EXPENDITURE

TABLE (B.5): (Contd.) CONSUMER EXPENDITURE AS PERCENTAGE TO ITEM-WISE TOTAL
CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER
CAPITA EXPENDITURE CLASSES IN RURAL AREAS: NORTH-WEST INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample villages : 152 ($s_1 = 76, s_2 = 76$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	24.83	23.86	24.23	19.35	20.53	20.22
2. milk and milk products	20.80	20.40	20.52	9.08	10.96	10.50
3. edible oil	1.72	1.25	1.40	1.78	0.68	0.97
4. meat, egg and fish	0.08	0.78	0.55	2.52	3.67	3.37
5. sugar	6.66	7.01	6.87	6.40	5.81	5.96
6. salt	0.20	0.16	0.16	9.26	0.23	0.26
7. other food	8.97	8.14	8.51	10.01	9.73	9.75
(i) food total	63.31	61.60	62.24	49.40	51.61	51.03
8. clothing	6.42	13.67	11.04	24.35	5.61	10.37
9. fuel and light	5.44	4.13	4.60	6.23	3.73	4.37
10. rent	0.00	0.00	0.00	0.00	0.00	0.00
11. taxes	0.00	0.00	0.00	0.00	0.00	0.00
12. miscellaneous	24.83	20.60	22.12	20.02	39.05	34.23
(ii) non-food total	36.69	38.40	37.76	50.60	48.39	48.97
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	7	6	13	5	4	9
(v) average household size	2.79	5.72	4.15	3.47	10.64	6.99

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	18.24	18.56	18.41	13.98	14.66	14.36	9.50	14.02	10.83	30.45	29.89	30.12
2.	15.32	26.18	21.36	27.83	29.85	28.97	11.64	21.36	14.49	19.90	19.20	19.52
3.	0.26	1.60	1.00	0.92	1.64	1.31	0.44	2.68	1.09	1.40	1.53	1.44
4.	1.63	0.10	0.78	0.00	0.26	0.15	1.02	2.77	1.53	0.51	1.19	0.90
5.	5.96	4.17	4.97	7.88	6.35	7.02	1.38	3.99	2.14	4.96	5.00	4.97
6.	0.09	0.26	0.19	0.13	0.09	0.11	0.09	0.12	0.10	0.25	0.23	0.24
7.	8.28	9.86	9.14	6.18	14.24	10.73	7.40	10.67	8.37	8.01	9.15	8.68
(i)	49.78	60.73	55.85	56.92	67.09	62.65	31.47	55.61	38.55	65.48	66.19	65.87
8.	6.19	3.73	4.81	34.26	11.79	21.62	8.06	14.67	9.99	10.49	7.39	8.80
9.	5.64	3.81	4.62	4.30	4.86	4.61	2.70	2.99	2.78	6.74	5.28	5.93
10.	0.00	0.00	0.00	0.00	0.02	0.13	2.76	1.38	2.34	0.19	0.06	0.12
11.	0.00	0.08	0.03	0.00	0.00	0.00	0.13	0.00	0.09	0.06	0.11	0.06
12.	38.39	31.65	34.69	4.52	16.04	10.99	54.88	25.35	46.25	17.04	20.97	19.22
(ii)	50.22	39.27	44.15	43.08	32.91	37.35	68.53	44.39	61.45	34.52	33.81	34.13
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	2	5	7	2	3	5	4	3	7	76	76	152
(v)	11.09	4.75	6.50	5.14	4.97	5.04	1.89	1.15	1.66	5.48	5.69	5.58

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TABLE (B.6) : DISTRIBUTION OF SAMPLE HOUSEHOLDS, PERCENTAGE OF ESTIMATED HOUSEHOLDS AND PERSONS AND AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH-WEST INDIA AND ALL INDIA EXCLUDING JAMMU AND KASHMIR)

monthly per capita expenditure classes in rupees	sample	distribution of sample households		percentage of estimated households		percentage of estimated persons		average number of persons per household	
		North-West India	all India	North-West India	all India	North-West India	all India	North-West India	all India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0—8	1	8	57	5.07	5.57	5.60	7.64	5.34	6.10
	2	3	47	3.05	6.15	2.38	7.76	3.58	5.62
	combined	11	104	4.02	5.85	3.96	7.70	4.65	5.85
8—11	1	7	82	8.50	9.42	10.32	11.88	5.87	5.61
	2	11	115	9.88	12.55	14.31	15.49	6.65	5.49
	combined	18	197	9.22	10.97	12.35	13.66	6.31	5.54
11—13	1	10	75	8.89	7.73	9.95	9.42	5.41	5.42
	2	6	74	3.81	9.51	1.55	9.88	1.87	4.62
	combined	16	149	6.24	8.61	5.68	9.65	4.28	4.98
13—15	1	6	66	5.57	7.07	5.47	8.17	4.75	5.14
	2	10	62	11.12	6.83	10.92	7.34	4.51	4.78
	combined	16	128	8.46	6.95	8.24	7.76	4.59	4.96
15—18	1	13	93	9.88	10.08	14.05	12.44	6.88	5.48
	2	8	105	5.71	10.01	11.25	11.39	9.05	5.06
	combined	21	198	7.71	10.05	12.62	11.92	7.72	5.28
18—21	1	7	79	5.27	6.73	5.89	6.42	5.41	4.24
	2	14	81	10.42	7.61	11.69	7.51	5.15	4.39
	combined	21	160	7.96	7.16	8.84	6.96	5.23	4.32
21—24	1	15	85	10.08	8.82	12.51	8.69	6.00	4.38
	2	10	66	5.74	6.85	4.52	7.69	3.62	4.99
	combined	25	151	7.81	7.85	8.45	8.20	5.09	4.65

CONSUMER EXPENDITURE

TABLE (B.6) (Contd.) : DISTRIBUTION OF SAMPLE HOUSEHOLDS, PERCENTAGE OF ESTIMATED HOUSEHOLDS AND PERSONS AND AVERAGE NUMBER OF PERSONS PER HOUSEHOLD BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH-WEST INDIA AND ALL INDIA (EXCLUDING JAMMU AND KASHMIR)

monthly per capita expenditure classes in rupees	sample	distribution of sample households		percentage of estimated households		percentage of estimated persons		average number of persons per household	
		North-West India	all India	North-West India	all India	North-West India	all India	North-West India	all India
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
24—28	1	8	79	5.96	6.99	5.68	6.37	4.61	4.06
	2	10	74	8.37	7.12	6.27	6.17	3.44	3.86
	combined	18	153	7.22	7.05	5.98	6.27	3.90	3.96
28—34	1	12	104	15.97	11.95	14.80	10.55	4.48	3.93
	2	16	96	15.11	8.91	16.49	8.09	5.01	4.04
	combined	28	200	15.52	10.45	15.66	9.33	4.75	3.97
34—43	1	10	86	9.52	8.82	9.16	7.87	4.65	3.97
	2	12	94	6.95	8.74	5.73	7.37	3.79	3.75
	combined	22	180	8.18	8.78	7.42	7.62	4.27	3.86
43—55	1	7	74	5.24	7.71	2.10	5.33	1.94	3.08
	2	9	78	7.85	6.63	6.58	5.49	3.85	3.68
	combined	16	152	6.60	7.18	4.38	5.41	3.12	3.35
55 and above	1	19	117	10.05	9.11	4.47	5.22	2.15	2.55
	2	15	102	11.99	9.09	8.31	5.82	3.18	2.85
	combined	34	219	11.06	9.10	6.42	5.52	2.74	2.70
all classes	1	122	997	100.00	100.00	100.00	100.00	4.84	4.45
	2	124	994	100.00	100.00	100.00	100.00	4.59	4.45
	combined	246	1991	100.00	100.00	100.00	100.00	4.71	4.45

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (B.7) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS : ALL INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample blocks : 1994 ($s_1 = 998, s_2 = 996$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.12	3.02	3.07	3.98	4.40	4.21	4.41	4.55	4.48
2. milk and milk products	0.26	0.07	0.17	0.57	0.54	0.55	1.04	0.85	0.94
3. edible oil	0.19	0.23	0.21	0.34	0.33	0.33	0.42	0.54	0.48
4. meat, egg and fish	0.13	0.15	0.14	0.35	0.28	0.31	0.53	0.46	0.49
5. sugar	0.18	0.10	0.14	0.27	0.25	0.26	0.37	0.34	0.36
6. salt	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04
7. other food	0.88	1.06	0.97	1.37	1.36	1.66	1.36	1.87	1.76
(i) food total	4.79	4.66	4.73	6.91	7.20	7.06	8.47	8.65	8.55
8. clothing	0.17	0.15	0.16	0.18	0.36	0.28	0.41	0.45	0.43
9. fuel and light	0.57	0.59	0.58	0.87	0.85	0.86	0.99	1.17	1.08
10. rent	0.04	0.02	0.03	0.18	0.10	0.14	0.16	0.15	0.16
11. taxes	0.05	0.04	0.04	0.00	0.04	0.02	0.02	0.10	0.06
12. miscellaneous	0.63	0.65	0.64	1.06	1.15	1.11	1.73	1.50	1.62
(ii) non-food total	1.46	1.45	1.45	2.29	2.50	2.41	3.31	3.37	3.35
(iii) total	6.25	6.11	6.18	9.20	9.70	9.47	11.78	12.02	11.90
(iv) number of sample households	57	47	104	82	115	197	75	74	149
(v) average household size	6.10	5.62	5.85	5.61	5.49	5.54	5.42	4.62	4.98

sr. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	4.73	5.01	4.86	5.01	4.87	4.94	5.76	5.48	5.61	5.92	6.59	6.23
2.	1.20	1.41	1.29	1.88	1.88	1.88	1.60	2.24	1.94	2.60	2.13	2.38
3.	0.52	0.49	0.50	0.53	0.64	0.58	0.68	0.76	0.72	0.64	0.75	0.69
4.	0.48	0.45	0.47	0.38	0.45	0.41	0.84	0.64	0.73	0.63	0.80	0.71
5.	0.46	0.48	0.47	0.59	0.60	0.59	0.52	0.78	0.66	0.73	0.60	0.67
6.	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05
7.	2.38	2.24	2.32	2.34	2.51	2.42	3.23	3.09	3.16	3.13	3.72	3.41
(i)	9.82	10.12	9.95	10.78	10.99	10.86	12.67	13.04	12.87	13.70	14.64	14.14
8.	0.48	0.36	0.42	0.80	0.92	0.86	0.87	0.88	0.88	1.82	1.04	1.46
9.	1.20	1.26	1.23	1.18	1.37	1.27	1.43	1.50	1.47	1.44	1.44	1.44
10.	0.42	0.16	0.30	0.34	0.44	0.39	0.62	0.73	0.68	0.69	0.53	0.62
11.	0.02	0.01	0.01	0.03	0.02	0.02	0.02	0.05	0.03	0.10	0.02	0.06
12.	1.98	2.24	2.10	3.15	2.70	2.94	3.81	3.32	3.55	4.50	4.69	4.59
(ii)	4.10	4.03	4.06	5.50	5.45	5.48	6.75	6.48	6.61	8.55	7.72	8.17
(iii)	13.92	14.15	14.01	16.28	16.44	16.34	19.42	19.52	19.48	22.25	22.36	22.31
(iv)	66	62	128	93	105	198	79	81	160	85	66	151
(v)	5.14	4.78	4.96	5.48	5.06	5.28	4.24	4.39	4.32	4.38	4.99	4.65

CONSUMER EXPENDITURE

TABLE (B.7) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : ALL INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample blocks = 1994 ($s_1 = 998$, $s_2 = 996$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2.	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	5.44	5.85	5.64	6.25	5.99	6.14
2. milk and milk products	2.85	2.81	2.83	3.99	3.86	3.93
3. edible oil	0.84	0.92	0.88	1.05	0.96	1.01
4. meat, egg and fish	1.04	0.90	0.97	0.85	1.14	0.97
5. sugar	0.85	0.81	0.83	1.06	1.00	1.03
6. salt	0.05	0.06	0.05	0.06	0.05	0.06
7. other food	4.20	4.35	4.27	4.82	4.56	4.71
(i) food total	15.27	15.70	16.47	18.08	17.56	17.85
8. clothing	2.48	2.00	2.25	2.36	2.05	2.22
9. fuel and light	1.82	1.75	1.79	2.07	1.86	1.98
10. rent	0.71	1.00	0.85	0.75	1.18	0.93
11. taxes	0.17	0.22	0.19	0.12	0.08	0.10
12. miscellaneous	5.45	5.17	5.31	7.44	7.79	7.59
(ii) non-food total	10.63	10.14	10.39	12.74	12.96	12.82
(iii) total	25.90	25.84	25.86	30.82	30.52	30.67
(iv) number of sample households	79	74	153	104	96	200
(v) average household size	4.06	3.86	3.96	3.93	4.04	3.97

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	6.35	6.23	6.29	7.08	6.81	6.95	9.12	6.83	7.92	5.38	5.28	5.33
2.	4.82	4.83	4.83	5.14	5.64	5.84	10.24	9.26	9.72	2.64	2.56	2.60
3.	1.13	1.09	1.11	1.36	1.11	1.23	1.67	1.56	1.62	0.71	0.71	0.71
4.	1.15	1.37	1.26	2.71	1.47	2.09	2.61	2.92	2.77	0.82	0.79	0.81
5.	1.12	1.12	1.12	1.31	1.51	1.41	1.54	1.63	1.59	0.69	0.68	0.69
6.	0.05	0.06	0.06	0.06	0.05	0.06	0.07	0.07	0.07	0.05	0.05	0.05
7.	5.44	5.64	5.54	7.25	7.01	7.13	10.84	10.09	10.45	3.51	3.47	3.49
(i)	20.06	20.34	20.21	24.91	24.50	24.71	36.09	32.36	34.14	13.80	13.54	13.68
8.	3.10	2.97	3.03	4.33	4.31	4.32	9.22	6.78	7.95	1.79	1.53	1.66
9.	2.29	2.16	2.23	2.60	2.49	2.54	4.10	3.50	3.79	1.57	1.52	1.55
10.	1.74	1.92	1.83	2.02	1.64	1.83	5.71	3.86	4.74	0.88	0.80	0.84
11.	0.08	0.08	0.08	0.07	0.30	0.18	0.60	0.25	0.42	0.08	0.08	0.08
12.	10.66	10.12	10.40	14.00	14.87	14.44	32.11	32.16	32.14	5.92	5.84	5.88
(ii)	17.87	17.25	17.57	23.02	23.61	23.31	51.74	46.55	49.04	10.24	9.77	10.01
(iii)	37.93	37.59	37.78	47.93	48.11	48.02	87.83	78.91	83.18	24.04	23.31	23.69
(iv)	86	94	180	74	78	152	117	102	219	977	994	1991
(v)	3.97	3.75	3.86	3.08	3.68	3.35	2.55	2.85	2.70	4.45	4.45	4.45

SANKHYĀ : THE INDIAN JOURNAL OF STATISTICS : SERIES B

TABLE (B.8) : CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF
30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS : NORTH-WEST INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample blocks = 246 ($s_1 = 122$, $s_2 = 124$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	3.21	3.82	3.40	4.71	4.20	4.41	3.43	3.56	3.45
2. milk and milk products	0.38	0.00	0.27	1.15	1.39	1.29	1.45	2.00	1.53
3. edible oil	0.20	0.06	0.16	0.25	0.35	0.31	0.37	0.52	0.39
4. meat, egg and fish	—	—	—	0.04	0.04	0.04	0.50	0.12	0.45
5. sugar	0.32	—	0.22	0.34	0.38	0.36	0.59	0.77	0.62
6. salt	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.02
7. other food	0.80	0.69	0.77	0.73	0.80	0.77	1.40	2.01	1.48
(i) food total	4.93	4.59	4.84	7.24	7.19	7.21	7.76	9.01	7.94
8. clothing	0.26	0.44	0.32	0.04	0.63	0.39	0.97	0.36	0.88
9. fuel and light	0.66	0.51	0.61	0.68	0.58	0.62	1.02	1.55	1.09
10. rent	—	—	—	—	—	—	—	—	—
11. taxes	0.01	—	0.01	—	—	—	—	—	—
12. miscellaneous	0.64	0.63	0.64	0.53	1.49	1.09	2.08	1.29	1.97
(ii) non-food total	1.57	1.58	1.58	1.25	2.70	2.10	4.07	3.20	3.94
(iii) total	6.50	6.17	6.42	8.49	9.89	9.31	11.83	12.21	11.88
(iv) number of sample households	8	3	11	7	11	18	10	6	16
(v) average household size	5.34	3.58	4.65	5.87	6.65	6.31	5.41	1.87	4.28

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	5.57	4.79	5.05	4.38	3.96	4.19	3.93	5.05	4.68	4.55	5.70	4.86
2.	3.15	3.31	3.26	3.22	4.28	3.70	3.21	2.93	3.02	5.26	3.96	4.90
3.	0.18	0.33	0.28	0.58	0.44	0.52	0.41	0.76	0.64	0.43	1.22	0.38
4.	0.07	0.09	0.08	0.15	0.01	0.09	0.39	0.31	0.34	0.24	0.19	0.23
5.	0.36	0.64	0.55	0.85	0.72	0.79	0.84	1.03	0.97	0.86	0.75	0.83
6.	0.02	0.02	0.02	0.04	0.04	0.04	0.03	0.05	0.04	0.03	0.04	0.03
7.	0.95	1.94	1.62	1.85	1.70	1.78	1.80	2.34	2.16	2.38	2.15	2.32
(i)	10.30	11.12	10.86	11.07	11.15	11.11	10.61	12.47	11.85	13.75	13.01	13.55
8.	0.25	0.18	0.20	0.61	0.46	0.54	1.84	1.55	1.64	2.17	1.35	1.95
9.	1.53	1.37	1.42	0.90	0.86	0.88	1.34	1.39	1.37	1.02	1.62	1.18
10.	—	—	—	0.19	0.49	0.33	0.28	0.32	0.31	0.33	1.00	0.52
11.	—	—	—	—	0.01	0.01	0.10	0.02	0.05	0.04	0.01	0.04
12.	1.50	1.53	1.52	3.13	2.89	3.02	5.24	4.03	4.43	4.88	5.55	5.06
(ii)	3.28	3.08	3.14	4.83	4.71	4.78	8.80	7.31	7.80	8.44	9.53	8.75
(iii)	13.58	14.20	14.00	15.90	15.86	15.89	19.41	19.78	19.65	22.19	22.54	22.30
(iv)	6	10	16	13	8	21	7	14	21	15	10	25
(v)	4.75	4.51	4.59	6.88	9.05	7.72	5.41	5.15	5.23	6.00	3.62	5.09

CONSUMER EXPENDITURE

TABLE (B.8) (Contd.): CONSUMER EXPENDITURE IN RUPEES PER PERSON FOR A PERIOD OF 30 DAYS BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: NORTH-WEST INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month number of sample blocks : 246 ($s_1 = 122, s_2 = 124$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	5.64	5.79	5.72	5.40	5.46	5.43
2. milk and milk products	3.42	3.70	3.57	6.68	5.83	6.22
3. edible oil	0.42	0.61	0.52	0.62	0.60	0.61
4. meat, egg and fish	0.62	0.07	0.33	0.20	0.43	0.32
5. sugar	0.74	1.13	0.95	1.28	1.00	1.13
6. salt	0.02	0.06	0.04	0.03	0.03	0.03
7. other food	3.36	4.50	3.97	3.05	3.11	3.08
(i) food total	14.22	15.86	15.10	17.26	16.46	16.82
8. clothing	4.13	3.38	3.73	2.33	2.83	2.60
9. fuel and light	1.48	1.60	1.54	1.49	1.65	1.57
10. rent	0.76	0.66	0.70	0.74	0.67	0.70
11. taxes	—	0.09	0.05	0.01	—	0.01
12. miscellaneous	6.31	5.66	5.96	7.38	8.46	7.96
(ii) non-food total	12.68	11.39	11.98	11.95	13.61	12.84
(iii) total	26.90	27.25	27.08	29.21	30.07	29.66
(iv) number of sample households	8	10	18	12	16	28
(v) average household size	4.61	3.44	3.90	4.48	5.01	4.75

srl. no.	monthly per capita expenditure classes in rupees									all classes		
	34-43			43-55			55 and above					
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	4.19	5.61	4.75	4.24	5.37	5.10	6.88	5.01	5.65	4.63	4.92	4.78
2.	9.06	5.77	7.77	8.33	10.13	9.70	11.90	12.50	12.29	4.48	4.82	4.65
3.	0.58	0.94	0.72	0.56	0.74	0.70	1.60	0.66	0.98	0.50	0.54	0.52
4.	0.09	0.39	0.21	0.36	1.17	0.98	1.88	0.94	1.26	0.30	0.32	0.31
5.	1.50	1.18	1.37	1.33	1.80	1.68	1.62	1.33	1.43	0.88	0.90	0.89
6.	0.05	0.04	0.05	0.06	0.04	0.04	0.09	0.06	0.07	0.03	0.04	0.04
7.	4.53	4.94	4.69	5.78	6.12	6.04	10.60	7.69	8.68	2.63	3.06	2.85
(i)	20.00	18.87	19.56	20.66	25.37	24.24	34.57	28.19	30.36	13.45	14.60	14.04
8.	2.82	4.80	3.60	5.28	4.64	4.79	8.58	4.93	6.18	1.93	2.09	2.01
9.	1.89	1.78	1.85	2.00	2.50	2.38	4.79	2.91	3.55	1.36	1.48	1.42
10.	0.69	2.72	1.49	5.30	2.54	3.19	3.62	5.53	4.87	0.57	1.07	0.83
11.	0.09	—	0.06	0.02	—	0.01	0.06	0.16	0.13	0.03	0.02	0.02
12.	14.01	9.56	12.26	15.49	13.32	13.83	39.57	33.09	35.31	6.57	7.39	6.98
(ii)	19.50	18.86	19.26	28.09	23.00	24.20	56.62	46.62	50.04	10.46	12.05	11.26
(iii)	39.50	37.73	38.82	48.75	48.37	48.44	91.19	74.81	80.40	23.91	26.65	25.30
(iv)	10	12	22	7	9	16	19	15	34	122	124	246
(v)	4.65	3.79	4.27	1.94	3.85	3.12	2.15	3.18	2.74	4.84	4.59	4.71

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TABLE (B.9) : CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPEN-
DITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA
EXPENDITURE CLASSES IN URBAN AREAS : ALL INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample blocks : 1994 ($s_1 = 998$, $s_2 = 996$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	49.92	49.43	49.68	43.26	45.36	44.46	37.44	37.85	37.65
2. milk and milk products	4.16	1.15	2.75	6.20	5.57	5.81	8.83	7.07	7.90
3. edible oil	3.04	3.76	3.40	3.70	3.40	3.48	3.57	4.49	4.03
4. meat, egg and fish	2.08	2.45	2.26	3.80	2.89	3.27	4.50	3.83	4.12
5. sugar	2.88	1.64	2.26	2.93	2.58	2.75	3.14	2.83	3.03
6. salt	0.48	0.49	0.49	0.33	0.41	0.42	0.34	0.33	0.34
7. other food	14.08	17.35	15.70	14.89	14.02	14.36	14.08	15.56	14.78
(i) food total	76.64	76.27	76.54	75.11	74.23	74.55	71.90	71.96	71.85
8. clothing	2.72	2.45	2.59	1.96	3.71	2.96	3.48	3.74	3.61
9. fuel and light	9.12	9.66	9.38	9.46	8.76	9.08	8.40	9.73	9.08
10. rent	0.64	0.33	0.49	1.96	1.03	1.48	1.36	1.25	1.35
11. taxes	0.80	0.65	0.64	0.00	0.41	0.21	0.17	0.83	0.50
12. miscellaneous	10.80	10.64	10.36	11.51	11.86	11.72	14.69	12.49	13.61
(ii) non-food total	23.36	23.73	23.46	24.89	25.77	25.45	28.10	28.04	28.15
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	57	47	104	82	115	197	75	74	149
(v) average household size	6.10	5.62	5.85	5.61	5.49	5.54	5.42	4.62	4.98

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-24		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	33.98	35.41	34.69	30.77	29.62	30.23	29.66	28.07	28.80	26.61	29.47	27.92
2.	8.62	9.96	9.21	11.55	11.44	11.51	8.24	11.48	9.96	11.69	9.53	10.67
3.	3.74	3.46	3.57	3.26	3.89	3.55	3.50	3.89	3.70	2.88	3.35	3.09
4.	3.45	3.18	3.35	2.33	2.74	2.51	4.33	3.28	3.75	2.83	3.58	3.18
5.	3.30	3.39	3.35	3.63	3.65	3.61	2.67	4.00	3.38	3.28	2.68	3.00
6.	0.36	0.28	0.29	0.31	0.24	0.24	0.21	0.26	0.26	0.22	0.22	0.22
7.	17.10	15.84	16.56	14.37	15.27	14.81	16.63	15.82	16.22	14.06	16.64	15.30
(i)	70.55	71.52	71.02	66.22	66.85	66.46	65.24	66.80	66.07	61.57	65.47	63.38
8.	3.45	2.54	3.00	4.91	5.60	5.26	4.48	4.51	4.52	8.18	4.65	6.54
9.	8.62	8.90	8.78	7.25	8.33	7.77	7.36	7.68	7.55	6.47	6.44	6.45
10.	3.02	1.13	2.14	2.09	2.68	2.40	3.20	3.74	3.49	3.10	2.37	2.78
11.	0.14	0.07	0.07	0.18	0.12	0.12	0.10	0.26	0.15	0.45	0.09	0.27
12.	14.22	15.84	14.99	19.35	16.42	17.99	19.62	17.01	18.22	20.23	20.98	20.58
(ii)	29.45	28.48	28.98	33.78	33.15	33.54	34.76	33.20	33.93	38.43	34.53	36.62
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	66	62	128	93	105	198	79	81	160	85	66	151
(v)	5.14	4.78	4.96	5.48	5.06	5.28	4.24	4.39	4.32	4.38	4.99	4.65

CONSUMER EXPENDITURE

TABLE (B.9) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTIONS AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS: ALL INDIA
(EXCLUDING JAMMU AND KASHMIR)

reference period: month

number of sample blocks: 1994 ($s_1 = 998$, $s_2 = 996$)

items	monthly per capita expenditure classes in rupees					
	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(23)	(24)	(25)	(26)	(27)	(28)
1. foodgrains	21.01	22.65	21.81	20.27	19.63	20.02
2. milk and milk products	11.00	10.87	10.94	12.95	12.65	12.81
3. edible oil	3.24	3.56	3.40	3.41	3.15	3.29
4. meat, egg and fish	4.02	3.48	3.75	2.76	3.74	3.16
5. sugar	3.28	3.13	3.21	3.44	3.28	3.36
6. salt	0.19	0.23	0.19	0.19	0.16	0.20
7. other food	16.22	16.84	16.51	15.64	14.93	15.36
(i) food total	58.96	60.76	59.82	58.66	57.54	58.20
8. clothing	9.57	7.74	8.70	7.66	6.72	7.24
9. fuel and light	7.03	6.77	6.92	6.72	6.09	6.46
10. rent	2.74	3.87	3.29	2.43	3.87	3.03
11. taxes	0.66	0.85	0.73	0.39	0.26	0.33
12. miscellaneous	21.04	20.01	20.53	24.14	25.52	24.74
(ii) non-food total	41.04	39.24	40.18	41.34	42.46	41.80
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	79	74	153	104	96	200
(v) average household size	4.06	3.86	3.96	3.93	4.04	3.97

srl. no.	monthly per capita expenditure classes in rupees											
	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	16.74	16.58	16.65	14.77	14.16	14.47	10.38	8.66	9.52	22.38	22.65	22.50
2.	12.71	12.85	12.78	10.72	13.59	12.16	11.66	11.73	11.69	10.98	10.98	10.98
3.	2.98	2.90	2.94	2.84	2.31	2.56	1.90	1.98	1.95	2.95	3.05	3.00
4.	3.03	3.64	3.34	5.65	3.06	4.35	2.97	3.70	3.33	3.41	3.39	3.42
5.	2.96	2.98	2.96	2.73	3.14	2.94	1.75	2.07	1.91	2.87	2.92	2.91
6.	0.13	0.16	0.16	0.13	0.10	0.12	0.08	0.09	0.08	0.21	0.21	0.21
7.	14.34	15.00	14.66	15.13	14.56	14.86	12.35	12.78	12.56	14.60	14.89	14.73
(i)	52.89	54.11	53.49	51.97	50.92	51.46	41.09	41.01	41.04	57.40	58.09	57.75
8.	8.17	7.90	8.02	9.03	8.96	9.00	10.50	8.59	9.56	7.45	6.56	7.01
9.	6.04	5.75	5.90	5.42	5.18	5.29	4.67	4.44	4.56	6.53	6.52	6.54
10.	4.59	5.11	4.84	4.21	3.41	3.81	6.50	4.89	5.70	3.66	3.43	3.55
11.	0.21	0.21	0.21	0.15	0.62	0.37	0.68	0.32	0.50	0.33	0.34	0.34
12.	28.10	26.92	27.54	29.22	30.91	30.07	36.56	40.75	38.64	24.63	25.06	24.81
(ii)	47.11	45.80	46.51	48.03	49.08	48.54	58.91	58.99	58.96	42.60	41.91	42.25
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	86	94	180	74	78	152	117	102	219	997	994	1991
(v)	3.97	3.75	3.86	3.08	3.68	3.35	2.55	2.85	2.70	4.45	4.45	4.45

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TABLE (B.10): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH-WEST INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample blocks : 246 ($s_1 = 122$, $s_1 = 124$)

items	monthly per capita expenditure classes in rupees								
	0-8			8-11			11-13		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. foodgrains	49.38	61.92	52.96	55.48	42.47	47.36	28.99	29.15	29.04
2. milk and milk products	5.85	0.00	4.21	13.55	14.06	13.86	12.26	16.38	12.88
3. edible oil	3.08	0.97	2.49	2.94	3.54	3.33	3.13	4.26	3.28
4. meat, egg and fish	—	—	—	0.47	0.40	0.43	4.23	0.98	3.79
5. sugar	4.92	—	3.43	4.00	3.84	3.87	4.99	6.31	5.22
6. salt	0.31	0.32	0.31	0.24	0.30	0.32	0.17	0.25	0.17
7. other food	12.31	11.18	11.99	8.60	8.09	8.27	11.83	16.46	12.46
(i) food total	75.85	74.39	75.39	85.28	72.70	77.44	65.60	73.79	66.84
8. clothing	4.00	7.13	4.98	0.47	6.37	4.19	8.20	2.95	7.41
9. fuel and light	10.15	8.27	9.50	8.01	5.86	6.66	8.62	12.69	9.18
10. rent	—	—	—	—	—	—	—	—	—
11. taxes	0.15	—	0.16	—	—	—	—	—	—
12. miscellaneous	9.85	10.21	9.97	6.24	15.07	11.71	17.58	10.57	16.57
(ii) non-food	24.15	25.61	24.61	14.72	27.30	22.56	34.40	26.21	33.16
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	8	3	11	7	11	18	10	6	16
(v) average household size	5.34	3.58	4.65	5.87	6.65	6.31	5.41	1.87	4.28

srl. no.	monthly per capita expenditure classes in rupees											
	13-15			15-18			18-21			21-25		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	41.01	33.74	36.07	27.54	24.97	26.37	20.25	25.53	23.82	20.50	25.28	21.80
2.	23.19	23.31	23.29	20.25	26.99	23.29	16.54	14.81	15.37	23.69	17.57	21.98
3.	1.33	2.32	2.00	3.65	2.77	3.27	2.11	3.84	3.26	1.94	0.98	1.70
4.	0.52	0.63	0.57	0.94	0.06	0.57	2.01	1.57	1.73	1.08	0.84	1.03
5.	2.65	4.51	3.93	5.35	4.54	4.97	4.33	5.21	4.94	3.88	3.33	3.72
6.	0.15	0.14	0.14	0.25	0.25	0.25	0.15	0.25	0.20	0.14	0.18	0.13
7.	7.00	13.66	11.57	11.64	10.72	11.20	9.27	11.83	10.99	10.73	9.54	10.40
(i)	75.85	78.31	77.57	69.62	70.30	69.92	54.66	63.04	60.31	61.96	57.72	60.76
8.	1.84	1.27	1.43	3.84	2.90	3.40	9.48	7.84	8.35	9.78	5.99	8.74
9.	11.26	9.65	10.14	5.66	5.42	5.54	6.90	7.03	6.97	4.60	7.19	5.29
10.	—	—	—	1.19	3.09	2.08	1.44	1.62	1.58	1.49	4.44	2.33
11.	—	—	—	—	0.06	0.06	0.52	0.10	0.25	0.18	0.04	0.18
12.	11.05	10.77	10.86	19.69	18.22	19.00	27.00	20.37	22.54	21.99	24.62	22.70
(ii)	24.15	21.69	22.43	30.38	29.70	30.08	45.34	36.96	39.69	38.04	42.28	39.24
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	6	10	16	13	8	21	7	14	21	15	10	25
(v)	4.75	4.51	4.59	6.88	9.05	7.72	5.41	5.15	5.23	6.00	3.62	5.09

CONSUMER EXPENDITURE

TABLE (B.10) (Contd.): CONSUMER EXPENDITURE AS PERCENTAGE TO TOTAL CONSUMER EXPENDITURE BY ITEMS OF CONSUMPTION AND BY MONTHLY PER CAPITA EXPENDITURE CLASSES IN URBAN AREAS : NORTH-WEST INDIA (EXCLUDING JAMMU AND KASHMIR)

reference period : month

number of sample blocks : 246 ($s_1 = 122$, $s_2 = 124$)

items	24-28			28-34		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(23)	(24)	(25)	(26)	(27)	(28)
(1)						
1. foodgrains	20.98	21.24	21.12	18.50	18.16	18.31
2. milk and milk products	12.71	13.58	13.18	22.87	19.38	20.97
3. edible oil	1.56	2.24	1.92	2.12	2.00	2.06
4. meat, egg and fish	2.30	0.26	1.22	0.68	1.43	1.08
5. sugar	2.75	4.15	3.51	4.38	3.33	3.81
6. salt	0.07	0.22	0.15	0.10	0.10	0.10
7. other food	12.49	16.51	14.66	10.44	10.34	10.38
(i) food total	52.86	58.20	55.76	59.09	54.74	56.71
8. clothing	15.35	12.40	13.77	7.98	9.41	8.77
9. fuel and light	5.50	5.87	5.69	5.10	5.49	5.29
10. rent	2.83	2.42	2.58	2.53	2.23	2.36
11. taxes	—	0.33	0.18	0.03	—	0.03
12. miscellaneous	23.46	20.78	22.02	25.27	28.13	26.84
(ii) non-food total	47.14	41.80	44.24	40.91	45.26	43.29
(iii) total	100.00	100.00	100.00	100.00	100.00	100.00
(iv) number of sample households	8	10	18	12	16	28
(v) average household size	4.61	3.44	3.90	4.48	5.01	4.75

monthly per capita expenditure classes in rupees

srl. no.	34-43			43-55			55 and above			all classes		
	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.	s. 1	s. 2	comb.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1.	10.61	14.87	12.24	8.70	11.10	10.53	7.54	6.70	7.03	19.36	18.45	18.88
2.	22.93	15.29	20.02	17.08	20.95	20.02	13.06	17.60	15.28	18.74	18.09	18.38
3.	1.47	2.49	1.85	1.15	1.53	1.45	1.75	0.88	1.22	2.09	2.03	2.06
4.	0.23	1.03	0.54	0.74	2.42	2.02	2.06	1.26	1.57	1.25	1.20	1.23
5.	3.80	3.13	3.53	2.73	3.72	3.47	1.78	1.78	1.78	3.68	3.38	3.52
6.	0.13	0.11	0.13	0.12	0.08	0.08	0.10	0.08	0.09	0.13	0.15	0.16
7.	11.46	13.09	12.08	11.86	12.65	12.47	11.62	10.28	10.79	11.00	11.48	11.26
(i)	50.63	50.01	50.39	42.38	52.45	50.04	37.91	37.68	37.76	56.25	54.78	55.49
8.	7.14	12.72	9.27	10.83	9.59	9.89	9.41	6.59	7.69	8.07	7.84	7.94
9.	4.78	4.72	4.77	4.10	5.17	4.91	5.25	3.89	4.42	5.69	5.55	5.61
10.	1.75	7.21	3.84	10.87	5.25	6.59	3.97	7.39	6.06	2.38	4.02	3.28
11.	0.23	—	0.15	0.04	—	0.02	0.07	0.21	0.16	0.13	0.08	0.08
12.	35.47	25.34	31.58	31.78	27.54	28.55	43.39	44.24	43.91	27.48	27.73	27.60
(ii)	49.37	49.99	49.61	57.62	47.55	49.96	62.09	62.32	62.24	43.75	45.22	44.51
(iii)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
(iv)	10	12	22	7	9	16	19	15	34	122	124	246
(v)	4.65	3.79	4.27	1.94	3.85	3.12	2.15	3.18	2.74	4.84	4.59	4.71

APPENDIX C

FACSIMILE OF THE SCHEDULE OF INVESTIGATION

In this round for consumer expenditure enquiry two schedules viz., schedule 1.0 and schedule 1.1 were canvassed in alternate villages or blocks. Schedule 1.1 was practically the same as schedule 1.0 with one extra block, viz. block 20, for collection of receipt and disbursement account of the sample household. Data on consumer expenditure, as presented in this report, were tabulated from blocks 10-16 of both the schedules. Facsimile of schedule 1.1 is appended here.

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Sch. 1.0-2

Sch. 1.0—2

[9] area owned and possessed : rent and improvements																		
serial number	item	as on date of survey.....												during year ended on...				
		owned		rented out				rented in				net owned(b*)		rent paid Rs. (00.00)	land revenue paid Rs. (00.00)	other payments for holding land (00.00)	rents received Rs. (00.00)	improvement made Rs. (00.00)
				a*		b*		a*		b*		area in acres (00.00)	value Rs (00.00)					
		area in acres (00.00)	value Rs. (00.00)	area in acres (00.00)	annual rent Rs. (00.00)	area in acres (00.00)	annual rent Rs. (00.00)	area in acres (00.00)	annual rent Rs. (00.00)	area in acres (00.00)	annual rent Rs. (00.00)							
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(14)	(15)	(16)	(17)	(18)
	(1) cultivated land																	
1.	irrigated																	
2.	non-irrigated																	
3.	sub-total (1)																	
	(2) other areas																	
4.	land (residential)																	
5.	other land																	
6.	water areas																	
7.	sub-total (2)																	
8.	total																	

[10] exchange and consumption of cereals during month ended on.....

serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
		stand- ard	local	ratio (00.00)	quantity		value Rs. (00.00)	quantity		value Rs. (00.00)	quantity		value Rs. (00.00)	quant y		value Rs. (00.00)
					local (00.00)	stand- ard (00.00)		local (00.00)	stand- ard (00.00)		local (00.00)	stand- ard (00.00)		local (00.00)	stand- ard (00.00)	
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	paddy (unhusked)	sr.									x	x	x	x	x	x
2.	rice (husked)	sr.														
3.	chira	sr.														
4.	khoi, lawa	sr														
5.	muri	sr.														
6.		sr.														
7.	sub-total	x	x	x	x			x			x			x		
8.	wheat	sr.														
9.	ata	sr.														
10.	maida	sr.														
11.		sr.														
12.	sub-total	x	x	x	x			x			x			x		
13.	jowar	sr.														
14.	ata	sr.														
15.		sr.														
16.	sub-total	x	x	x	x			x			x			x		
17.	bajra	sr.														
18.	ata	sr.														
19.		sr.														
20.	sub-total	x	x	x	x			x			x			x		
21.	maize	sr.														
22.	ata	sr.														
23.		sr.														
24.	sub-total	x	x	x	x			x			x			x		

* for reference, see instructions.

CONSUMER EXPENDITURE

Sch. 1.0-3

[10] exchange and consumption of cereals during month ended on.....																
serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
					quantity			quantity			quantity			quantity		
		stand- ard	local	ratio (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
25.	barley	sr.														
26.	ata	sr.														
27.		sr.														
28.	sub-total	x	x	x	x			x			x			x		
29.	small millets	sr.														
30.	ata	sr.														
31.		sr.														
32.	sub-total	x	x	x	x			x			x			x		
33.	ragi	sr.														
34.	ata	sr.														
35.		sr.														
36.	sub-total	x	x	x	x			x			x			x		
37.	gram (Bengal)	sr.														
38.	ata	sr.														
39.		sr.														
40.	sub-total	x	x	x	x			x			x			x		
41.	total cereals	x	x	x	x			x			x			x		
[11] exchange and consumption of milk and milk products during month ended on.....																
serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
					quantity			quantity			quantity			quantity		
		stand- ard	local	ratio (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)	local (00.00)	stand- ard (00.00)	value Rs. (00.00)
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	milk (cow)	sr.														
2.	milk (buffalo)	sr.														
3.	milk (goat)	sr.														
4.	milk (others)	sr.														
5.	ghee (buffalo)	sr.														
6.	ghee (cow)	sr.														
7.	butter	sr.														
8.	dahi, ghol (lassi)	sr.														
9.	khoa/chana, caseine	sr.														
10.	other milk products	sr.														
11.	total	x	x	x	x			x			x			x		

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[12] exchange and consumption of other food items during month ended on.....																
serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
					standard	local	ratio (00.00)	quantity		value Rs. (00.00)	quantity		value Rs. (00.00)	quantity		
		local (00.00)	standard (00.00)	local (00.00)				standard (00.00)	local (00.00)		standard (00.00)	value Rs. (00.00)		local (00.00)	standard (00.00)	
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	(1) cereals substitutes															
1.	tapioca	sr.														
2.	pea	sr.														
3.		sr.														
4.		sr.														
5.	others	sr.														
6.	cereals substitute sub-total (1)	x	x	x	x			x			x			x		
	(2) pulses and products															
7.	arhar	sr.														
8.	gram	sr.														
9.	moong	sr.														
10.	masur	sr.														
11.	urd	sr.														
12.	khesari	sr.														
13.	pea	sr.														
14.		sr.														
15.	others	sr.														
16.	pulses sub-total (2)	x	x	x	x			x			x			x		
	(3) oil, oilseeds & products															
17.	mustard oil	sr.														
18.	cocoanut oil	sr.														
19.	gingelly oil (oil)	sr.														
20.	groundnut oil	sr.														
21.	vanaspati	sr.														
22.	 seed	sr.														
23.	 seed	sr.														
24.	others	sr.														
25.	oil, oilseed & product sub-total (3)	x	x	x	x			x			x			x		
	(4) vegetables															
26.	potato	sr.														
27.	onion	sr.														
28.	brinjal	sr.														
29.	cabbage	sr.														
30.	beans	sr.														
31.	root vegetables (e.g. arum, radish etc.)	sr.														
32.	gourd	sr.														
33.	cauliflower	sr.														
34.		sr.														
35.	others	sr.														
36.	vegetables sub-total (4)	x	x	x	x			x			x			x		
	(5) fruits & nuts															
37.	banana	no.														
38.	orange, lemon	no.														
39.	mango	no.														
40.	mahua	no.														
41.	cocoanut	no.														
42.	jackfruit	no.														
43.		no.														
44.	others small fruits	sr.														
45.	others	no.														
46.	fruits & nuts sub-total (5)	x	x	x	x	x		x	x		x	x		x	x	

CONSUMER EXPENDITURE

Sch. 10-5

[12] exchange and consumption of other food items during month ended on.....																
serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
		stand- ard	local	ratio (00.00)	quantity		value Rs. (00.00)	quantity		value Rs. (00.00)	quantity			quantity		
					local (00.00)	stan- dard (00.00)		local (00.00)	stan- dard (00.00)		local (00.00)	stan- dard (00.00)	value Rs. (00.00)	local (00.00)	stan- dard (00.00)	value Rs. (00.00)
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	(6) meat, fish, eggs															
47.	goat meat	sr.														
48.	mutton	sr.														
49.	beef	sr.														
50.	pork	sr.														
51.	buffalo meat	sr.														
52.	other meat	sr.														
53.	eggs	no.														
54.	poultry	no.														
55.	fish	sr.														
56.	bird	sr.														
57.		sr.														
58.	other meat	sr.														
59.	meat etc. sub-total (6)	x	x	x	x	x		x	x		x	x		x	x	
	(7) sugar															
60.	sugar	sr.														
61.	gur (cane)	sr.														
62.	gur (others)	sr.														
63.	sugar candy	sr.														
64.	others	sr.														
65.	sugar sub-total (7)	x	x	x	x			x			x			x		
	(8) salt															
66.	sea salt	sr.														
67.	rock & other salt.	sr.														
68.	salt sub-total (8)	x	x	x	x			x			x			x		
	(9) spices															
69.	turmeric	tola														
70.	black pepper	tola														
71.	pepper, dry chillies	tola														
72.	green chillies	tola														
73.		tola														
74.		tola														
75.	others	tola														
76.	spices sub-total (9)	x	x	x	x			x			x			x		
	(10) beverage & refresh- ments															
77.	tea (cups)	cup.														
78.	tea (loaf)	lb.														
79.	coffee (cups)	cup.														
80.	coffee powder	lb.														
81.	other beverages (cocoa etc.)	lb.														
82.	biscuits & confec- tioneries	sr.														
83.	salted refreshments	sr.														
84.	prepared sweets	sr.														
85.	other refreshments	sr														
86.	beverage etc sub-total (10)	x	x	x	x	x		x	x		x	x		x	x	
87.	total of bl. (12) sub-totals (1-10)	x	x	x	x	x		x	x		x	x		x	x	

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Sch. 1.0-6

Feb. 1,0 -6

[13] exchange and consumption of intoxicants and fuel & light during month ended on.....

serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
					stand- dard	local	ratio (00.00)	quantity			quantity			quantity		
		local (00.00)	stand- dard (00.00)	value Rs. (00.00)				local (00.00)	stand- dard (00.00)	value Rs. (00.00)	local (00.00)	stand- dard (00.00)	value Rs. (00.00)	local (00.00)	stand- dard, (00.00)	value Rs. (00.00)
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	(1) <i>pan etc.</i>															
1.	<i>pan</i> (loaf)	no.														
2.	<i>pan</i> (finished)	no.														
3.	<i>supari</i> (betel nut)	tola														
4.		tola														
5.	<i>pan, supari</i> sub-total (1)	x	x	x	x	x		x	x		x	x		x	x	
	(2) <i>tobacco and products</i>															
6.	<i>biri</i>	no.														
7.	cigarettes	no.														
8.	leaf tobacco	sr.														
9.	<i>hookah</i> tobacco(prepared)	sr.														
10.	cheroot	no.														
11.	snuff	tola														
12.	<i>zarda, kimam, surti</i>	tola														
13.		tola														
14.	others	x	x	x	x	x		x	x		x	x		x	x	
15.	tobacco sub-total (2)	x	x	x	x	x		x	x		x	x		x	x	
	(3) <i>drugs & intoxicants</i>															
16.	opium	tola														
17.	<i>ganja</i>	tola														
18.	toddy	pint														
19.		pint														
20.	country liquor	pint														
21.	foreign liquor	pint														
22.		x	x	x	x	x		x	x		x	x		x	x	
23.	others	x	x	x	x	x		x	x		x	x		x	x	
24.	drugs etc. sub-total (3)	x	x	x	x	x		x	x		x	x		x	x	
	(4) <i>fuel & light</i>															
25.	coke	sr.														
26.	coal	sr.														
27.	fire-wood	sr.														
28.	electricity	st. unit														
29.	gas	st. unit														
30.	dung cake	sr.														
31.	charcoal	sr.														
32.	kerosene	sr.														
33.	candle	no.														
34.	matches	stick														
35.	other fuel & lighting oil	sr.														
36.	lubricating oil	gallon														
37.	motor spirit	gallon														
38.	others	x	x	x	x	x		x	x		x	x		x	x	
39.	fuel & light sub-total (4)	x	x	x	x	x		x	x		x	x		x	x	
40.	total of hl. 13. sub-totals (1-4)	x	x	x	x	x		x	x		x	x		x	x	

CONSUMER EXPENDITURE

Sch. 10-7

[14] exchange and consumption of clothing etc. during month ended on.....																	
serial number	item	specification of local measures, if any			purchased in exchange of							consumed out of home grown stock			total consumption		
					money			goods & services									
					quantity			quantity									
		standard	local	ratio (00.00)	local (00.00)	standard (00.00)	value Rs. (00.00)	local (00.00)	standard (00.00)	value Rs. (00.00)	local (00.00)	standard (00.00)	value Rs. (00.00)	local (00.00)	standard (00.00)	value Rs. (00.00)	
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
	(1) clothing : cotton																
1.	dhosi-handloom (excl. khaddar)	yd.															
2.	khaddar	yd.															
3.	mill made	yd.															
4.	total	x	x	x	x			x			x			x			
5.	sari-handloom(excl. khaddar)	yd.															
6.	khaddar	yd.															
7.	mill made	yd.															
8.	total	x	x	x	x			x			x			x			
9.	shirting & other cloth for garment-handloom (excl. khaddar)	yd.															
10.	khaddar	yd.															
11.	mill made	yd.															
12.	total	x	x	x	x						x			x			
13.	shirt, kurta etc.-handloom (excl. khaddar)	no.															
14.	khaddar	no.															
15.	mill made	no.															
16.	total	x	x	x	x			x			x			x			
17.	coat, overcoat etc.-handloom (excl. khaddar)	no.															
18.	khaddar	no.															
19.	mill made	no.															
20.	total	x	x	x	x			x			x			x			
21.	lungi-handloom (excl. khaddar)	no.															
22.	khaddar	no.															
23.	mill made	no.															
24.	total	x	x	x	x			x			x			x			
25.	pyjama, trousers etc.-handloom(excl. khaddar)	no.															
26.	khaddar	no.															
27.	mill made	no.															
28.	total	x	x	x	x			x			x			x			
29.	chaddar-handloom (excl. khaddar)	yd.															
30.	khaddar	yd.															
31.	mill made	yd.															
32.	total	x	x	x	x			x			x			x			
33.	salwar	no.															
34.	petticoat	no.															
35.	dopatta	no.															
36.	chemise	no.															
37.	blouse, bodice, frocks etc.	no.															
38.	vest, underwear etc.	no.															
39.	sock, stocking etc.	pair															
40.	others	no.															
41.	total	x	x	x	x	x		x	x		x	x		x	x		
42.	clothing cotton sub-total (1)	x	x	x	x	x		x	x		x	x		x	x		
43.	(2) clothing: silk sari, dhoti	yd															
44.	chaddar and cloth for garments	yd.															
45.	other garments	no.															
46.	clothing silk sub-total (2)	x	x	x	x	x		x	x		x	x		x	x		

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Sch. 10-8

Sch. 10-8

[14] exchange and consumption of clothing etc. during month ended on....																
serial number	item	specification of local measures, if any			purchased in exchange of						consumed out of home grown stock			total consumption		
					money			goods & services								
					stand- dard	local	ratio (00 00)	quantity		value Rs. (00.00)	quantity		value Rs. (00.00)	quantity		quantity
		local (00 00)	stand- dard (00 00)	local (00 00)				stand- dard (00.00)	local (00.00)		stand- dard (00.00)	local (00.00)		stand- dard (00.00)		
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	(3) clothing: wool															
47.	wrapper, shawl and cloth for garments	yd.														
48.	coat & trouser	no.														
49.	shirt, kurta, blouse	no.														
50.	knitted garments, sock	no.														
51.	others	no.														
52.	clothing: wool sub-total (3)	x	x	x	x	x		x	x		x	x		x	x	
	(4) bedding and upholstery															
53.	mosquito net	no.														
54.	pillow	no.														
55.	bed sheet	yd.														
56.	mattress	yd.														
57.	quilt	yd.														
58.	rug & blanket	yd.														
59.	bed-cover	yd.														
60.	mat & matting	yd.														
61.	curtain, table cloth	yd.														
62.	others	x	x	x	x	x		x	x		x	x		x	x	
63.	bedding etc. sub-total(4)	x	x	x	x	x		x	x		x	x		x	x	
64.	total of bl (14) sub-totals (1-4)	x	x	x	x	x		x	x		x	x		x	x	

[15] expenditure during month ended on.....								
sr. no.	item	amount Rs. (00.00)	sr. no.	item	amount Rs. (00.00)	sr. no.	item	amount Rs. (00.00)
(0.1)	(0.2)	(1)	(0.1)	(0.2)	(1)	(0.1)	(0.2)	(1)
1.	(1)amusement & sports cinema		25.	(4) toilets soap		47.	(6) services	
2.	theatre		26.	snow, cream		48.	teacher	
3.	sports goods		27.	powder		49.	doctor	
4.	sport shows		28.	scents & perfumes		50.	nurse, midwife	
5.	mela and fair		29.	hair oils, hair lotions & hair cream		51.	lawyer	
6.	toys		30.	tooth paste, tooth powder		52.	priest, preceptor	
7.	others		31.	tooth brush		53.	domestic servant	
8.	sub-total—(1)		32.	comb, brush		54.	domestic cook	
9.	(2) education books & journals		33.	shaving blades		55.	driver	
10.	newspapers		34.	shaving stick & shaving cream		56.	coach man	
11.	periodicals		35.	other saving requisites		57.	sweeper	
12.	paper		36.	others		58.	barbar	
13.	pencil		37.	sub-total—(4)		59.	cobbler	
14.	nib			(5) sundry goods		60.	tailor	
15.	other stationery		38.	umbrella		61.	washerman	
16.	school fees		39.	walking stick		62.	carpenter	
17.	others		40.	earthen ware		63.	blacksmith	
18.	sub-total—(2)		41.	washing soap		64.	locksmith	
19.	(3) medicine allopathic		42.	washing soda		65.	brick layers	
20.	homeopathic		43.	other washing requisites		66.	masons	
21.	ayurvedic		44.	stamps & postages		67.	other house builders	
22.	unani		45.	others		68.	unskilled labour	
23.	others		46.	sub-total (5)		69.	other services	
24.	sub-total-(3)						sub-total—(6)	

CONSUMER EXPENDITURE

Sch. 1.0-9

[15] expenditure during month ended on.....									
sr. no.	item	amount Rs. (00.00)	sr. no.	item	amount Rs. (00.00)	sr. no.	item	amount Rs. (00.00)	
(0.1)	(0.2)	(1)	(0.1)	(0.2)	(1)	(0.1)	(0.2)	(1)	
	(7) conveyance		81.	(8) ceremonials birth		90.	(10) consumer taxes & cesses		
70.	railway		82.	marriage			road cess		
71.	bus		83.	death		91.	chowkidary tax		
72.	steamer & boat		84.	others		92.	municipal rates		
73.	motor car, motor cycle etc.		85.	sub-total—(8)		93.	consumer license fees		
74.	cycle			(9) rent for domestic use		94.	other local rates		
75.	rickshaw		86.	residential house		95.	others		
76.	horse cab		87.	residential land		96.	sub-total—(10)		
77.	bullock cart		88.	other goods		97.	total of block 15 : sub-totals (1—10)		
78.	hand cart, porter		89.	sub-total—(9)					
79.	others								
80.	sub-total—(7)								

[16] expenditure on durable and semidurable goods for domestic use during month ended on.....										
serial no.	item	no. in use on date of survey	purchase		cost of raw materials purchased for			total expenditure Rs. (00.00)	second hand purchases	
			no.	amount Rs. (00.00)	construction Rs. (00.00)	repairs Rs. (00.00)	total Rs. (00.00)		no.	amount Rs. (00.00)
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	(1) furniture bedstead									
2.	almirah									
3.	rack									
4.	show case									
5.	bench									
6.	chair									
7.	stool									
8.	coach									
9.	table, desk									
10.	box, trunk									
11.	suitcase, attache									
12.	others								x	
13.	sub-total—(1)	x	x							
14.	(2) musical instruments harmonium									
15.	gramophone									
16.	radio									
17.	other instruments								x	
18.	sub-total—(2)	x	x							
19.	(3) ornaments gold	x								
20.	silver	x								
21.	other metals	x								
22.	jewels, pearls etc.	x							x	
23.	sub-total—(3)	x	x							
24.	(4) domestic utensils bell metals	x								
25.	copper	x								
26.	aluminium	x								
27.	iron	x								
28.	others	x							x	
29.	sub-total—(4)	x	x							

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[16] expenditure on durable and semidurable goods for domestic use during month ended on.....										
serial no.	item	no. in use on date of survey.	purchase		cost of raw materials purchased for			total expenditure Rs. (00.00)	second hand purchases	
			no.	amount Rs. (00.00)	construction Rs. (00.00)	repairs Rs. (00.00)	total Rs. (00.00)		no.	amount Rs. (00.00)
(0.1)	(0.2)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	(5) foot-wear (in pairs)									
30.	boot, shoe									
31.	slipper, sandal, chappal									
32.	wooden sandal									
33.	others									
34.	sub-total (5)	×	×						×	
	(6) other equipments									
35.	bicycle									
36.	motor car									
37.	type-writer									
38.	sewing machine									
39.	clock									
40.	watch									
41.	fountain pen									
42.	spectacles									
43.	others									
44.	sub-total—(6)	×	×						×	
	(7) residential house									
45.	building and land	×	×	×	×				×	×
46.	sub-total—(7)	×	×						×	
47.	total of bl. 16: sub-totals (1-7)	×	×						×	

[17] summary of expenditure by blocks (Rs. 00.00)									[18] second hand purchase for domestic consumption during month ended on.....		
serial no.	reference		purchased in exchange of			consumed out of home grown stock	purchase and consumption out of home grown stock	total consumption	sr. no.	item	value (Rs. 00.00)
	block	line	money	goods & services	total						
(0.1)	(0.2)	(0.3)	(1)	(2)	(3)	(4)	(5)	(6)	(0.1)	(0.2)	(1)
									1.	durable and semi-durable goods (bl. 16, line 47, col. 9)	
									2.	other second hand purchases	
									3.	total	
									19] housing condition		
									1.	plinth type	
									2.	wall type	
									3.	roof type	
									4.	latrine type	
									5.	drinking water	
									6.	period built since	
									7.	period repaired since	
									8.	number of rooms	
									9.	floor space (sq.ft.)	
									10.	rented or not	
									11.	if rented, monthly rent (Rs. 00)	
									12.	if not rented, cost of repair and maintenance during the year ended on (Rs. 00)	
11.	household size (no.)										
12.	per capita montly expenditure										

BOOK REVIEWS

Measurement and Statistics : A Basic Text Emphasizing Behavioral Sciences Applications : By Virginia L. Senders, New York : Oxford University Press. Price \$ 6.

The word "measurement", as it appears in the title of this book, refers to the theory of levels of measurement delineated by the psychologist S. S. Stevens. According to Stevens' theory, measurements may be classified into four scales : nominal, ordinal, interval and ratio scales, which refer respectively to data classified into categories (nominal scale), ranked data (ordinal scale), quantitative measurements without an absolute zero point, that is with an arbitrary zero point (interval scale), and with an absolute zero point (ratio scale). Descriptive statistics are presented in the first half of the book for each scale in turn. Estimation and testing of hypotheses are similarly presented in the second half of the book. The book is written by a psychologist for students of psychology and other behavioral sciences.

Descriptive statistics are approached in terms of five questions : (1) What general picture do the data convey ? (2) If an individual is a member of the group, what is our best prediction about him in terms of the variable under investigation ? (3) How bad is that prediction ? (4) How much can the prediction be improved by knowledge of another variable ? and (5) How does a particular individual compare with the rest of the group ? These five questions, covering frequency distributions and measures of central tendency, variability, relationship and individual position (e.g., percentiles), are used to present the descriptive statistics appropriate for each scale of measurement. Following a chapter on probability, the topic of statistical inference is introduced. Estimation of parameters and methods of testing hypotheses concerning differences between samples and independence of variables are presented, scale by scale, as for descriptive statistics.

For students and junior research workers in psychology and other behavioral sciences, some pedagogical and practical advantages follow from the above plan of presentation. Students are introduced gradually to the concepts of descriptive statistics, starting with the simplest cases. The presentation of both non-parametric and parametric methods in this framework should be satisfactory from the point of view of application of statistics. The research worker will be helped in posing the proper questions and in choosing the statistical techniques appropriate for his data. Other useful or interesting features include the sections on exponents, logarithms and graphical presentation in Chapter 0 ; $\hat{H} = -\sum p(i)$, $\log_2 p(i)$, as a measure of uncertainty ; and $\hat{T} = \hat{H}(y) - \hat{H}_x(y)$, as uncertainty reduction for nominally scaled data in Chapter 3 ; an index of order association from Goodman and Kruskal for ordinal data in Chapter 4 ; presentation of functional relationships (linear, exponential, power, logistic, hyperbolic, parabolic and ogive functions) and minor means in Chapter 8 ; and a tabular summary of descriptive statistics in Chapter 9. Mention may also be made of the steps in the testing of hypotheses given in Chapter 11 ; the statistic $\frac{1}{2} \log_2 e N \hat{T} = -2 \log_e \lambda$ for testing the independence of two nominally scaled variables in Chapter 12 ; the introduction of Tchebychev's Inequality for interval and

ratio data in Chapter 14 ; and a tabular summary of inferential statistics in Chapter 16. The appendix contains 20 tables ; besides the usual tables, one gives $-p(i) \log_2 p(i)$ for use with $\hat{H}$ and $\hat{T}$, and five were previously available in journals (e.g., Table F was originally presented in *Sankhyā*, 4, 1940, pp. 556-7).

There are some omissions and errors in the book, of which some may be mentioned. In Chapter O, the effects of rounding error are glossed over in the section on significant digits. Kendall's coefficient tau is not mentioned in Chapter 4 for ranked data. Questions for students to answer are distributed throughout the text ; mistakes occasionally appear in the answers given, for example, page 3, question 5 (189.8 not 1,898) and 7(3789.6 not 1198.3) ; page 115, question 9d(2) (72.2% not 27.8%) ; page 198, question 4e (72.7 not 27.8) ; page 320, question 3 (3.33 not 0.333). Although the absence of references to the statistical literature is common in many introductory texts, it is more noticeable in this book because a number of methods are introduced which are not commonly covered in such texts. While the somewhat informal style of writing may be appropriate for American students, it contains phrases and idioms which may be unfamiliar to readers outside the United States.

This book should be useful for teaching statistics to students who lack an adequate mathematical background, which is especially common in behavioral sciences. Junior research workers in psychology and related fields should also find it worth reading. Statisticians advising or teaching psychologists might be interested in seeing Chapters 9 and 16 which summarize the plan and content of the book in the form of two-way tables. The book would not be suitable as a text for students specializing in statistics nor for those with a sufficient mathematical background.

Rhea S. Das

Indian Tax Structure and Economic Development : By G. S. Sahota. Studies in Economic Growth, No. 2 : Institute of Economic Growth, 1961 ; Price Rs. 9.00.

The Institute of Economic Growth proposes to bring out a series of monographs entitled, Studies in Economic Growth, as a part of its research programme and the present study, based on the research work undertaken by G. S. Sahota as a Junior Research Fellow in the Institute, is the second monograph in the series.

The book under review is concerned with establishing some empirical relations between national income and certain other indicators of sectoral growth of the economy and the taxes which could be supposed to be related to a particular indicator chosen, and then to make a forecast of probable tax yields on certain assumptions relating to the growth of the indicators. Since total yield of taxes expressed as a percentage of national income is high both in advanced countries and also during initial phases of development in socialist countries like China, it is necessary to raise this percentage in India from its lowly value of about 7 p.c. in 1952-53 to a reasonably high figure. In order to achieve this, the taxation system in India has to be income elastic.

BOOK REVIEWS

The author has introduced the concepts of buoyancy and income elasticity of a tax structure in this context. The buoyancy is the capacity of a tax to increase the flow of income to the exchequer including the increase due to enhancement of rates, enlargement of base and multiplication of levies. Income elasticity of a tax, on the other hand, relates to yields at a stable rate and base and without any fresh levies. Thus, in computing income elasticity one has to eliminate the effects of changes due to changes in rates, modification of the base and new imports. According to the author, in a satisfactory tax structure with built-in flexibility, a large portion of the increment of income should be automatically taxed away and it should not be necessary to have recourse to extensive fresh legislations for new taxes year after year.

After having discussed the concepts, the author has worked out estimates of elasticity and buoyancy of Indian taxes on the basis of data relating to 1948-49 to 1958-59. Apart from using regressions of the type $Y = aX^b$ with Y as the yield; X , national income (or some other indicator) and a and b constants, he has also worked out regressions of both tax yields and national income on time, and obtained elasticities and buoyancies as ratios of the time rates. To get some idea of the buoyancy, he has also computed the percentages of tax yields on national income and studied the time sequence of these percentages. The coefficients of income elasticity computed by him show anomalous results. ".....indirect taxes show better correlation with National Income, while....direct taxes which are based on income and are highly progressive in rate schedule afford relatively weak correlation." The income tax, for example, does not appear to be correlated with national income, urban income, business activity index, industrial profits, ordinary share prices or value added by manufacture. Coming to buoyancies again, indirect taxes generally exhibit larger coefficients than direct taxes. While income tax has a coefficient of 2.04, the corresponding figure for central excise duty is as high as 3.786.

The author then proceeds to examine the causes of inelasticity of the Indian tax structure. While four taxes, income tax, land tax, customs and state excise duties are mainly responsible for the general inelasticity of the tax structure, he has examined only the first two of these, in some detail. In so far as income tax is concerned, avoidance and evasion, low rates in low income brackets and certain characteristics inherent in an under-developed economy are cited as contributory causes of low income-elasticity; income redistribution in favour of non-income tax payers in general could also be regarded as a minor factor in causing inelasticity. The author's attempt at estimating the extent of evasion in this context is praiseworthy. Following a different approach, the author obtains considerably lower figures than Professor Kaldor who made use of the data on distributive shares of national income supplied by the reviewer. Regarding land tax, in so far as it is linked with annual rental value, there is very little chance of its being elastic. The author proceeds also with a consideration of how a more elastic taxation system could be imposed on the produces from land.

In the final chapter, an attempt has been made to project the yield of taxes for the period of the Third Five Year Plan by making use of the elasticity and buoyancy coefficients on the assumption of growth of national income at the rate of 6 p.c. per year. The figures based on elasticity coefficients naturally are low, and computed on this basis, the tax revenue would drop from 8.55 p.c. of national income in 1958-59 to 8.13 p.c. in 1965-66. When

buoyancy coefficients are used, the figure goes upto 13.08 p.c. in 1965-66 from 8.55 p.c. in 1958-59. Since this will not be achieved automatically, it will be necessary to think of additional tax measures every year during the Third Plan period and the magnitude of this effort will be sizable.

G. S. Sahota has succeeded in producing an interesting book on an important problem. While there is some weakness in his use of statistics, his results would probably have been similar had he used less sophisticated statistical tools. This would have been an improvement, because correlation and regression analysis on time series data is not strictly valid unless care is taken to study and isolate the effect of the trend.

M. Mukherjee







